

The Sydney siege: courage, compassion and connectedness

TO THE EDITOR: Raphael and Burns highlighted the strong police response to the hostage situation in Sydney in 2014.¹ Diversions devices, such as the flash-bang grenades used in Sydney, have been increasingly used to distract and disorientate people in civilian hostage and riot situations internationally. While not intended to cause permanent damage, there are risks associated with their use.

Flash-bang grenades deflagrate using a powdered blend of aluminium, magnesium and ammonium perchlorate, which generates a spontaneous explosion. When initiated, illumination is produced through oxidation of the components, resulting in heat exceeding 38°C, a blast reaching 180 decibels and a brief flash of 1–6 million candela (up to 600 million lux) within a distance of about 1.8 m.²

The intense flash results in temporary bleaching of the photoreceptors in the eye. Ocular injury can occur if the flash-bang grenade explodes at close range, with possible thermal or mechanical damage. Other more powerful devices, producing a similar intensity of unidirectional light, have resulted in vision loss similar to that seen with laser weapons.²

Temporary hearing loss and aural pain results from a single or multiple blast of loud noise between 140 and 170 decibels. Damage to the sensitive structure of the inner and middle ear can result in hearing loss and tinnitus.³ Perilymphatic fistula of the inner ear may occur, necessitating immediate assessment and possible surgical treatment.⁴

Premature deflagration can also cause injury to the operator.⁵ As these devices continue to be used in civilian situations, it is important to remain aware of any potential hazards, to both the operator and bystanders.

Annette K Hoskin BOptom, MBA

Marcus D Atlas MBBS, FRACS

David A Mackey MD, FRANZCO

University of Western Australia, Perth, WA.

annettehoskin@lei.org.au

Acknowledgements: Annette Hoskin's position receives funding from the Joyce Henderson Bequest Fund.

Competing interests: No relevant disclosures.

doi: 10.5694/mja15.00167 ■

- 1 Raphael B, Burns P. The Sydney siege: courage, compassion and connectedness. *Med J Aust* 2015; 202: 70-71.
- 2 E-LABS. Performance characterization study: noise flash diversionary devices. Fredericksburg, Va: E-LABS, 2004. <https://www.ncjrs.gov/App/publications/Abstract.aspx?id=205642> (accessed Feb 2015).
- 3 Remenschneider AK, Lookabaugh S, Aliphas A, et al. Otologic outcomes after blast injury: the Boston Marathon experience. *Otol Neurotol* 2014; 35: 1825-1834.
- 4 Nadol JB Jr. Hearing loss. *N Engl J Med* 1993; 329: 1092-1102.
- 5 Clinton P. The hazards of flash-bangs. *POLICE Magazine* 2011; Feb 28. <http://www.policemag.com/blog/swat/story/2011/02/the-hazards-of-flash-bang-devices.aspx> (accessed Feb 2015). ■

Missing malaria? Potential obstacles to diagnosis and hypnozoite eradication

TO THE EDITOR: Bradbury and colleagues highlight some important challenges in managing *Plasmodium vivax* malaria when appropriate diagnostics and therapeutics are lacking.¹

Their article, prompted by one of the authors acquiring *P. vivax* in Solomon Islands, should also prompt consideration of how these problems affect the populations of countries where our cases of imported malaria originate. The authors warn of increasing risks to Australians because of greater overseas travel. However, this is not actually happening here in Australia, where nationwide



Ocular injury can occur if the flash-bang grenade explodes at close range



Hoskin et al



Successful elimination of malaria in Solomon Islands and neighbouring countries would be a historic achievement



Karunajeewa et al

notifications have fallen dramatically in recent years² — probably reflecting less exposure of travellers to endemic malaria as a result of significant global improvements in malaria control.^{3,4}

Solomon Islands provides a good example of this — with Australian and international support, reductions of >90% in malaria morbidity over the past 20 years have led to the tantalising possibility of complete elimination by 2030. However, *P. vivax* is problematic. In South Pacific populations, >50% of cases arise from hypnozoite relapses, which constitute the major drivers of ongoing transmission.⁵ Primaquine, recommended for routine case management, is rarely used in Solomon Islands, owing to nationwide unavailability of testing for glucose-6-phosphate dehydrogenase deficiency. A suitably cheap, accurate, temperature-stable point-of-care test is urgently needed, as is ongoing research to determine the best way to deploy antirelapse therapy in this setting.

Successful elimination of malaria in Solomon Islands and neighbouring countries would be a historic achievement for the health of the peoples of our region, and it would also pay a dividend for Australia's own public health and biosecurity.

Harin Karunajeewa MBBS, FRACP, PhD^{1,2}

Andreea Waltmann BA/BSc(Hons)¹

Lyndes Wini MBBS³

Ivo Mueller PhD¹

¹ Walter and Eliza Hall Institute, Melbourne, VIC.

² Western Health, Melbourne, VIC.

³ Ministry of Health, Honiara, Solomon Islands.

karunajeewa.h@wehi.edu.au

Competing interests: No relevant disclosures.

doi: 10.5694/mja14.01760 ■

- 1 Bradbury RS, Robertson G, Norton RE, Taylor-Robinson AW. Missing malaria? Potential obstacles to diagnosis and hypnozoite eradication. *Med J Aust* 2014; 201: 630-631.
- 2 Knope KE, Doggett SL, Kurucz N, et al. Arboviral diseases and malaria in Australia, 2011–12: annual report of the National Arbovirus and Malaria

Advisory Committee. *Commun Dis Intell Q Rep* 2014; 38: E122-E142.

- 3 Leder K, Torresi J, Brownstein JS, et al. Travel-associated illness trends and clusters, 2000–2010. *Emerg Infect Dis* 2013; 19: 1049–1073.
- 4 Murray CJ, Ortblad KF, Guinovart C, et al. Global, regional, and national incidence and mortality for HIV, tuberculosis, and malaria during 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013. *Lancet* 2014; 384: 1005–1070.
- 5 Betuela I, Rosanas-Urgell A, Kiniboro B, et al. Relapses contribute significantly to the risk of *Plasmodium vivax* infection and disease in Papua New Guinean children 1–5 years of age. *J Infect Dis* 2012; 206: 1771–1780. ■

Getting the levers right: a way forward for rural medicine

TO THE EDITOR: We agree with the points raised by Kamerman in his erudite article.¹ There are, however, two things that should be mentioned.

The first is that Townsville and Gundagai do not have the same Australian Standard Geographical Classification — Remoteness Area (ASGC-RA) classification: Townsville is categorised as RA3 (outer regional Australia), whereas Gundagai receives the less remote classification of RA2 (inner regional Australia). This magnifies the absurdity of the current classification situation even further.

The second is that not only would the general practitioner copayment policy have led to practices deciding against taking on registrars, but it would also have had an even greater potential for practices to decide against accepting medical students. Although the proposed Medicare rebate freeze will not have the immediate impact on undergraduate and vocational training that the copayment would have had, the net effect will ultimately be very similar.

Placement in rural general practices forms a key part of our medical student training and is a major factor in the success that we have had to date in our graduates choosing both generalist and rural career pathways. An unintended consequence of the copayment policy could have been to derail these positive outcomes with a stroke of the pen. We predict that, as the impacts of the Medicare rebate freeze take effect, enough practices will eventually decide to withdraw from training to have a significant negative impact on training programs and, ultimately, the primary health care workforce.

David Garne MB ChB, DCH, MPH(Hons)

Ian G Wilson FRACGP, MAssessEval, PhD
University of Wollongong, Wollongong, NSW.

david_garne@uow.edu.au

Competing interests: No relevant disclosures.

doi: 10.5694/mja14.01607 ■

- 1 Kamerman IJ. Getting the levers right: a way forward for rural medicine. *Med J Aust* 2014; 201: 567. ■

A systematic approach to chronic heart failure care: a consensus statement

TO THE EDITOR: We commend Page and colleagues for their comprehensive statement on chronic heart failure (CHF) care.¹ However, we wish to highlight an important omission to the discussion regarding telemonitoring.

There is Level 1 evidence for the use of telemonitoring as part of CHF management.² Currently, telehealth is a major strategic item on the agenda of the federal Department of Health.³ Telehealth and telemonitoring can be the best options for Australians with CHF who do not have access to multidisciplinary or specialist heart failure care for reasons of carer responsibility, geography, socioeconomic, cultural and linguistic diversity, frailty,

immobility or complexity of illness. To provide truly consumer-focused CHF care, options need to be available to all patients equally.⁴

We believe an opportunity has been missed in this consensus statement, particularly in regard to the poor access to multidisciplinary and specialist CHF care services in Australia.⁵ Although the evidence base for the use of telehealth in CHF care and management is still evolving, we now have a significant body of evidence demonstrating effectiveness in improving CHF outcomes.²

We agree with the authors that future research should consider the role of telehealth. However, we recommend that this research should be in the form of translation, implementation and integration of telehealth-based CHF care within the Australian health care system, to overcome current unresolved inequities.

Sally C Inglis PhD, BHSc(Hons), BN¹

Robyn A Clark PhD, FACN, FAHA²

¹ University of Technology, Sydney, Sydney, NSW.

² Flinders University, Adelaide, SA.

robyn.clark@flinders.edu.au

Acknowledgements: Sally Inglis is supported by a NSW Cardiovascular Research Network Life Science Research Fellowship from the Heart Foundation and the NSW Office for Science and Medical Research (CR 11S 6226).

Competing interests: No relevant disclosures.

doi: 10.5694/mja14.01175 ■

- 1 Page K, Marwick TH, Lee R, et al. A systematic approach to chronic heart failure care: a consensus statement. *Med J Aust* 2014; 201: 146–150.
- 2 Inglis SC, Clark RA, McAlister FA, et al. Structured telephone support or telemonitoring programmes for patients with chronic heart failure. *Cochrane Database Syst Rev* 2010; (8): CDC0072228. doi: 10.1002/14651858.CD007228.pub3.
- 3 Australian Government Department of Health. National E-Health Strategy. Canberra: DoH, 2012 <http://www.health.gov.au/internet/main/publishing.nsf/Content/National+EHealth+Strategy> (accessed Aug 2014).
- 4 Australian Commission on Safety and Quality in Health Care. National Safety and Quality Health Service Standards. Sydney: ACSQHC, 2012. <http://www.acsqhc.gov.au>



Placement in rural general practices forms a key part of our medical student training and is a major factor in the success ... to date



Garne et al

safetyandquality.gov.au/publications/national-safety-and-quality-health-service-standards (accessed Jan 2015).

- Clark RA, Driscoll A. Access and quality of heart failure management programs in Australia. *Aust Crit Care* 2009; 22: 111-116. ■

IN REPLY: I and my coauthors on the consensus statement¹ support these comments. At the time of writing, we acknowledged that further research to build the evidence base on the benefits and application of telehealth for patients with chronic heart failure would be welcomed. This is particularly so, given its potential benefit in reducing cardiovascular health inequities.

Karen Page RN, DN, BEd

National Heart Foundation of Australia, Melbourne, VIC.

karen.page@heartfoundation.org.au

Competing interests: No relevant disclosures.

doi: 10.5694/mja14.01383 ■

- Page K, Marwick TH, Lee R, et al. A systematic approach to chronic heart failure care: a consensus statement. *Med J Aust* 2014; 201: 146-150. ■

Call time on alcohol advertising in sport

TO THE EDITOR: In handing down the 2014–15 Budget, the Australian Government announced the closure of the Australian National Preventive Health Agency (ANPHA), effective from 30 June 2014. It now remains to be seen whether the ANPHA's comprehensive review of alcohol advertising regulation in Australia, including its draft recommendations for greater protection of children and young people exposed to alcohol advertising, will remain.

As a starting point, the ANPHA recommended that an exemption be removed from the Commercial Television Industry Code of Practice which allows direct advertising of alcohol products on free-to-air television before 8.30 pm

as an accompaniment to live sport broadcasts on public holidays and weekends.¹ If this recommendation were taken up by the government, it would significantly reduce young people's exposure to alcohol advertising.

A wealth of evidence shows that frequent exposure of the young to alcohol marketing increases the likelihood of early initiation to drinking, higher consumption among those already drinking, and heavy drinking in the long term.²⁻⁴

Sporting events on television are extremely popular among young people in Australia, but exposure to alcohol advertising while watching these reinforces a close relationship between alcohol and sport.

Worryingly, young people's exposure to alcohol marketing through televised sport now extends well beyond the ad breaks. In a recent study commissioned by Cancer Council Victoria, researchers at the University of Wollongong found that, of all alcohol marketing in the broadcasts during the major football code finals, most exposure came through vision of fixed signage around the stadium and integrated advertisements (live announcements, pop-ups and banners, and broadcast sponsorship announcements).⁵

Governments must strengthen regulations to protect children and break the nexus between alcohol advertising and sport.

Brian Vandenberg MPH, BA(Hons), BAppSci^{1,2}

Kathryn E Chapman BSc, MNutrDiet³

¹ Cancer Council Victoria, Melbourne, VIC.

² Monash University, Melbourne, VIC.

³ Cancer Council NSW, Sydney, NSW.

Brian.Vandenberg@cancervic.org.au

Competing interests: Brian Vandenberg is currently employed as the executive officer of the National Alliance for Action on Alcohol.

doi: 10.5694/mja14.01020 ■

- Australian National Preventive Health Agency (ANPHA). Draft report – alcohol advertising: the effectiveness of current regulatory codes in addressing community concern. ANPHA, Feb 2014. <http://>



A wealth of evidence shows that frequent exposure of the young to alcohol marketing increases the likelihood of early initiation to drinking



Vandenberg et al

anpha.gov.au/internet/anpha/publishing.nsf/Content/F641F67C6D6F52C5CA257C86001D5F19/\$File/Alcohol%20Advertising%20DRAFT%20REPORT%20MASTER%20DOCUMENT%2020.2.14%20(D14-3314).pdf (accessed Mar 2015).

- Fan AZ, Russell M, Stranges S, et al. Association of lifetime alcohol drinking trajectories with cardiometabolic risk. *J Clin Endocrinol Metab* 2008; 93: 154-161.
- Fleming K, Thorson E, Atkin CK. Alcohol advertising exposure and perceptions: links with alcohol expectancies and intentions to drink or drinking in undergrad youth and young adults. *J Health Commun* 2004; 9: 3-29.
- Hastings G, Sheron N. Alcohol marketing: grooming the next generation: children are more exposed than adults and need much stronger protection. *BMJ* 2013; 346: f1227.
- Barrie L, Jones S, Chapman M, Corr N. Alcohol advertising in televised broadcasts of Australian football finals series. Research report prepared by the Centre for Health Initiatives, University of Wollongong for Cancer Council Victoria. 2013. [http://www.parliament.nsw.gov.au/prod/parlament/committee.nsf/0/87d249a468a3b6f1ca257b650024bf41/\\$FILE/Alcohol%20advertising%20in%20televised%20broadcasts%20of%20Australian%20football%20finals%20series.pdf](http://www.parliament.nsw.gov.au/prod/parlament/committee.nsf/0/87d249a468a3b6f1ca257b650024bf41/$FILE/Alcohol%20advertising%20in%20televised%20broadcasts%20of%20Australian%20football%20finals%20series.pdf) (accessed Mar 2015). ■

Firearms, mental illness, dementia and the clinician

TO THE EDITOR: In their recent article in the Journal, Wand and colleagues suggest that the medical profession should play a more active role in the regulation of firearm licences held by older Australians.¹ However, the authors underestimate the rate of firearm ownership in Australia by a factor of 1000 when they state that 3.9 per 100 000 people held a firearm licence in 2001. In reality, about three-quarters of a million Australians held a firearm licence in 2001.²

While the reported vignettes seem compelling enough, the authors' recommendations need

some scrutiny. Almost 15% of the population are aged over 65 years, yet these older people commit about 3% of the roughly 250 homicides per year.^{3,4} Further, only about 15% of Australian homicides involve a gun.³ Hence, the potential number of lives saved by the measures they suggest can only be tiny.

In contrast, the downside of their recommendations might be significant. First, obligations on doctors to play a more active role in firearm ownership might deter some patients from seeking medical care. Second, even if people were not deterred from seeking health care, more active involvement by doctors in firearm regulation would come at the opportunity cost of ordinary medical care — care that could be focused on common and lethal medical conditions.

Firearm control in Australia has been singularly successful. While it may be the case that firearm regulations should be tightened, this is not really the responsibility of the medical profession, nor is it fair to focus on older Australians.

Matthew M Large BSc(Med), MBBS, FRANZCP
University of New South Wales, Sydney, NSW.
mmbml@bigpond.com

Competing interests: I have given evidence in coronial proceedings into deaths that involve firearms.

doi: 10.5694/mja15.00003 ■

- 1 Wand AP, Peisah C, Strukovski JA, Brodaty H. Firearms, mental illness, dementia and the clinician. *Med J Aust* 2014; 201: 674-678.
- 2 GunPolicy.org. 2014. Calculated rates — Australia (possession data). Historical population data — USCB international data base. Suitland, Md: US Census Bureau Population Division, 2014. <http://www.gunpolicy.org/firearms/citation/quotes/4201> (accessed Jan 2015).
- 3 Australian Institute of Criminology. Homicide in Australia 2010–12. http://www.aic.gov.au/publications/current%20series/mr/21-40/mr23/04_homicide-2010-12.html (accessed Jan 2015).
- 4 Australian Bureau of Statistics. Australian Demographic Statistics,

Jun 2014. (ABS Cat. No. 3101.0.) <http://www.abs.gov.au/ausstats/abs@.nsf/0/1CD2B1952AFC5E7ACA257298000F2E76?OpenDocument> (accessed Jan 2015). ■

IN REPLY: There was a transcription error in our article.¹ The rate of licensed firearm ownership in Australia in 2001 was indeed 3.9 per 100 people,² although this is likely to be an underestimate, as unregistered, unlicensed and illegal firearms are not captured by official statistics.

Although the overall rate of homicide by firearm owners is low, we argue that the stakes are high. Other potential adverse outcomes of a person who lacks the capacity to safely handle firearms continuing to have a firearm include accidental injury and suicide.

We acknowledged the ethical implications of doctors having a role in assessing suitability for firearm licences.¹ However, there is already an expectation that doctors should notify police when concerns about risk to the community or individuals arise from a patient's access to firearms.³ Risk assessment alone is inadequate, but doctors better meet their obligations when risk assessment is combined with capacity assessment.

Older adults are more likely to have complex cognitive and physical comorbid conditions that affect their ability to safely use a firearm. Screening is important, and doctors will use their clinical judgement to identify patients who may need a closer examination of their capacity in relation to firearm access.

Anne PF Wand MBBS, MPsy, FRANZCP
Carmelle Peisah MBBS(Hons), MD, FRANZCP²
1 St George Hospital, Sydney, NSW.
2 University of New South Wales, Sydney, NSW.
a.wand@unsw.edu.au

Competing interests: No relevant disclosures.

doi: 10.5694/mja15.00275 ■

- 1 Wand AP, Peisah C, Strukovski JA, Brodaty H. Firearms, mental illness,



While it may be the case that firearm regulations should be tightened, this is not really the responsibility of the medical profession



Large



there is already an expectation that doctors should notify police when concerns about risk to the community or individuals arise from a patient's access to firearms



Wand et al

dementia and the clinician. *Med J Aust* 2014; 201: 674-678.

- 2 GunPolicy.org. 2014. Calculated rates — Australia (possession data). Historical population data — USCB international data base. Suitland, Md: US Census Bureau Population Division, 2014. <http://www.gunpolicy.org/firearms/citation/quotes/4201> (accessed Feb 2015).
- 3 *Firearms Act 1996* (NSW).
- 4 Australian National Preventive Health Agency (ANPHA). Draft report — alcohol advertising: the effectiveness of current regulatory codes in addressing community concern. ANPHA, Feb 2014. [http://anpha.gov.au/internet/anpha/publishing.nsf/Content/F641F67C6D6F52C5CA257C86001D5F19/\\$File/Alcohol%20Advertising%20DRAFT%20REPORT%20MASTER%20DOCUMENT%2020.2.14%20\(D14-3314\).pdf](http://anpha.gov.au/internet/anpha/publishing.nsf/Content/F641F67C6D6F52C5CA257C86001D5F19/$File/Alcohol%20Advertising%20DRAFT%20REPORT%20MASTER%20DOCUMENT%2020.2.14%20(D14-3314).pdf) (accessed Mar 2015).
- 5 Fan AZ, Russell M, Stranges S, et al. Association of lifetime alcohol drinking trajectories with cardiometabolic risk. *J Clin Endocrinol Metab* 2008; 93: 154-161.
- 6 Fleming K, Thorson E, Atkin CK. Alcohol advertising exposure and perceptions: links with alcohol expectancies and intentions to drink or drinking in undergrad youth and young adults. *J Health Commun* 2004; 9: 3-29.
- 7 Hastings G, Sheron N. Alcohol marketing: grooming the next generation: children are more exposed than adults and need much stronger protection. *BMJ* 2013; 346: f1227.
- 8 Barrie L, Jones S, Chapman M, Corr N. Alcohol advertising in televised broadcasts of Australian football finals series. Research report prepared by the Centre for Health Initiatives, University of Wollongong for Cancer Council Victoria. 2013. [http://www.parliament.nsw.gov.au/prod/parlament/committee.nsf/0/87d249a468a3b6f1ca257b650024bf41/\\$FILE/Alcohol%20advertising%20in%20televised%20broadcasts%20of%20Australian%20football%20finals%20series.pdf](http://www.parliament.nsw.gov.au/prod/parlament/committee.nsf/0/87d249a468a3b6f1ca257b650024bf41/$FILE/Alcohol%20advertising%20in%20televised%20broadcasts%20of%20Australian%20football%20finals%20series.pdf) (accessed Mar 2015). ■