

# Letters

## Revalidation — what is the problem and what are the possible solutions?

**TO THE EDITOR:** Kerry Breen has hit the nail squarely on the head.<sup>1</sup>

The Medical Board of Australia should heed Peter Ustinov's advice, "Don't just do something, stand there!"

And Oliver Cromwell's plea, "think it possible you may be mistaken".

And mine: "Please think again!"

It is easier (more effective and cost-effective) to move the tail of the bell curve to the right than to shift the bulk of it to the right.

While every doctor's performance could possibly be improved, there is little point and dubious cost-effectiveness in improving doctors on the right of the bell curve from "good" or "very good" to "a little bit better", when the point of the exercise is to improve the game of poor performers.

Alison Reid, former Medical Director of the New South Wales Medical Board, has suggested that the focus could readily be directed at doctors about whom there are a number of complaints, and at those in the groups known to be at risk: those with an impairment, the aged, and the professionally and geographically isolated.<sup>2</sup>

It is among these groups that the evidence shows that poor performance is most likely to be found. It would seem to me that assessment of doctors in these groups, in their practices, as is done by the Royal Australasian College of Physicians in its clinical audit program,<sup>3</sup> would be more productive and cost-effective than wholesale assessment of all practising doctors.

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**Competing interests:** I am a former Deputy President of the NSW Medical Board.

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- 1 Breen K. Revalidation — what is the problem and what are the possible solutions? *Med J Aust* 2014; 200: 153-156.
- 2 Reid A. To discipline or not to discipline? Managing poorly performing doctors. In: Freckleton IR, editor. *Regulating health practitioners*. Sydney: Federation Press, 2006: 90ff.
- 3 Royal Australasian College of Physicians. Education policy. <http://www.racp.edu.au/page/education-policies> (accessed Feb 2014). □

**TO THE EDITOR:** Breen raises an important issue and asks some salient questions,<sup>1</sup> but the "bad apples" do not provide the main professional or educational impetus for revalidation. The real problem is that the continuing professional development practices of most practitioners have little impact on quality of care:<sup>2</sup> there is an "implementation gap".<sup>3</sup> There is good evidence that immediate and substantial improvements in patients' outcomes can be had if what is known to work is implemented in clinical practice.<sup>4</sup>

High-level evidence shows that the solution to this problem is to link learning to assessment and improvement of performance by audit, 360° assessment or quality-improvement projects.<sup>5</sup> It is impossible to defend to our community why we would not do this.

The linkage of revalidation, professional learning and improvement in practice is a political necessity and an appropriate response to our social contract with the community. The key question is *how*. The experience in the United Kingdom is overly bureaucratic, and the focus on examinations in the United States is inappropriate; however, other models, such as those in Canada and the Netherlands,<sup>6</sup> offer more promise. The challenge is to learn from international experience and develop an Australian revalidation system that meets the needs of Australian consumers and professionals. We will still have to deal with the bad apples, but there is a real prospect that by linking the learning of individual physicians with meaningful assessment of their



“ continuing professional development practices of most practitioners have little impact on quality of care ”

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performance, we can improve the quality of the whole crop.

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- 1 Breen K. Revalidation — what is the problem and what are the possible solutions? *Med J Aust* 2014; 200: 153-156.
- 2 Forsetlund L, Bjørndal A, Rashidian A, et al. Continuing education meetings and workshops: effects on professional practice and health care outcomes. *Cochrane Database Syst Rev* 2009; (2): CD003030.
- 3 Grimshaw JM, Russell IT. Effect of clinical guidelines on medical practice: a systematic review of rigorous evaluations. *Lancet* 1993; 342: 1317-1322.
- 4 Seddon ME, Marshall MN, Campbell SM, Roland MO. Systematic review of studies of quality of clinical care in general practice in the UK, Australia and New Zealand. *Qual Health Care* 2001; 10: 152-158.
- 5 Ivers N, Jamtvedt G, Flottorp S, et al. Audit and feedback: effects on professional practice and healthcare outcomes. *Cochrane Database Syst Rev* 2012; (6): CD000259.
- 6 Lombarts MJMH, Klazinga NS. Supporting Dutch medical specialists with the implementation of *visitation* recommendations: a descriptive evaluation of a 2-year project. *Int J Qual Health Care* 2003; 15: 119-129. □

## Myopia and skin cancer are inversely correlated: results of the Busselton Healthy Ageing Study

**TO THE EDITOR:** Myopia is a major public health problem, and is increasing in prevalence and severity.<sup>1</sup> The complications of high myopia (defined as a spherical equivalent [SE] > 6.00 diopters [D] or axial length > 26.5 mm) can be sight-threatening.<sup>2</sup>

Spending more time outdoors is associated with less myopia and clinical trials currently underway in China are aimed at reducing the development and progression of myopia in schoolchildren through increased outdoor activity.<sup>3</sup>

In fair-skinned populations, increased time outdoors also increases the risk of developing skin cancers. Australia has among the highest skin cancer rates in the world.<sup>4</sup>

Demographic and ocular features of the cohort\*

Features	Cohort		P
	Controls (n = 1718)	Those with history of skin cancer† (n = 143)	
Age in years (range)	56.3 (45.8–66.4)	57.0 (45.5–65.7)	0.166‡
Male	913 (53.1%)	73 (51.0%)	0.630‡
Known ocular abnormality			
Diabetes-related	31 (1.8%)	2 (1.4%)	1.000‡
Macular degeneration	41 (2.4%)	1 (0.7%)	0.370‡
Glaucoma	36 (2.1%)	3 (2.1%)	1.000‡
Cataract	94 (5.5%)	4 (2.8%)	0.239‡
Eye injury or trauma	32 (1.9%)	1 (0.7%)	0.510‡
Other	61 (3.6%)	8 (5.6%)	0.243‡
Myopia (mean SE both eyes ≤ -0.50 diopters)	374 (21.6%)	17 (11.9%)	0.005‡

SE = spherical equivalent. \* Values are numbers (%) of patients unless otherwise specified. † Includes cutaneous melanoma, squamous cell carcinoma, basal cell carcinoma. ‡ P for t test. § P for  $\chi^2$  test. ¶ P for Fisher exact test.

We tested the hypothesis that people who have developed ultraviolet (UV) radiation-related skin cancer as a result of excessive time spent outdoors are less myopic compared with age-matched people with no prior history of skin cancer. Our cohort included 1861 participants of the Busselton Healthy Ageing Study (BHAS), a cross-sectional survey of individuals born in 1946–1964 and living in a Western Australian rural coastal community.<sup>5</sup> Participants completed a questionnaire including their previous medical history. Refractive error was measured by autorefractometry using the Nidek ref/keratometer ARK-510A.

The cohort was of northern European ancestry, the mean age was 56.3 years (range, 45.5 to 66.4 years) and 986 (53.0%) were men. There were 143 participants (7.7%) with a previous history of either cutaneous melanoma, squamous cell carcinoma or basal cell carcinoma.

There was a significant difference in the prevalence of myopia between the skin cancer and control groups ( $\chi^2$  test,  $P = 0.005$ ) (Box). In a regression model adjusted for age, sex and education, the odds of being non-myopic were 2.3 times higher in the skin cancer group compared with controls (95% CI, 1.42–4.11;  $P = 0.002$ ). For every 1.00 D increase in mean SE, the odds of having skin cancer increased by a factor of 1.18 (95% CI, 1.04–1.34;  $P = 0.01$ ). The

outcomes of the analysis were not significantly altered after removing participants with cataract.

This study highlights that while spending time outdoors lessens an individual's risk of developing myopia, recommendations to increase outdoor activity in childhood must also take into account the potentially harmful effects of exposure to UV radiation.

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- 1 Pan CW, Ramamurthy D, Saw SM. Worldwide prevalence and risk factors for myopia. *Ophthalmic Physiol Opt* 2012; 32: 3-16.
- 2 Saw SM, Gazzard G, Shih-Yen EC, Chua WH. Myopia and associated pathological complications. *Ophthalmic Physiol Opt* 2005; 25: 381-391.
- 3 Morgan IG, Xiang F, Rose KA, et al. Two year results from the Guangzhou Outdoor Activity



## A crop of mango dermatitis in the Northern Territory

**TO THE EDITOR:** Mango sap is released from broken stems and branches of mango trees. It contains substances that are thought to elicit a T cell-mediated response (urushiol, cardol, limonene and  $\beta$ -pinene).<sup>1</sup> The response occurs over days and results in severe inflammation and blistering; the blistering can last weeks, similar to that produced by other plants in the Anacardiaceae family (poison oak, poison ivy, etc). The flesh and skin of the mango fruit can also cause a more typical type 1 hypersensitivity reaction.<sup>2</sup>

One in four Australian grown mangoes are from the Katherine region. During the 2012 mango harvest, 66 patients (82 presentations) attended Katherine Hospital emergency department with mango dermatitis or related complications over a 35-day period, and a further 31 people presented to a general practice clinic in Katherine. The majority of these patients (59/66) were workers from overseas, and English was not the first language for half of them (32/66). A wide range of nationalities was represented — the home countries of the patients ranged from Estonia to Fiji.

The highest number of emergency department presentations in 1 day was 17, a significant addition to the daily average of 47 emergency department presentations.

One patient was referred to Royal Darwin Hospital and underwent surgical debridement for severe extensive blistering. Two patients were admitted to Katherine Hospital with secondary cellulitis; one of them

“ Mango dermatitis can mostly be prevented by use of splash-proof clothing and gloves ” Sargent et al

Longitudinal Study (GOALS). Abstract 2735. Presented at: The Association for Research in Vision and Ophthalmology; 2012 May 6-9; Fort Lauderdale, Fla.

4 Australian Institute of Health and Welfare, Australasian Association of Cancer Registries. Cancer in Australia: an overview 2012. Canberra: AIHW, 2012. (AIHW Cat. No. CAN 70; Cancer Series No. 74.) <https://www.aihw.gov.au/publication-detail/?id=60129542359> (accessed Mar 2014).

5 James AL, Hunter M, Straker L, et al. Rationale, design and methods for a community-based study of clustering and cumulative effects of chronic disease processes and their effects on ageing: the Busselton Healthy Ageing Study. *BMC Public Health* 2013; 13: 936. □

underwent surgical debridement of leg abscesses and was admitted for 8 days. One patient had throat swelling and one developed shingles after taking oral steroids — the main treatment specified for moderate and severe cases as per the hospital guideline.

In contrast to findings from a previous report,<sup>3</sup> our experience suggests that prior sensitisation by exposure to Anacardiaceae plants is not required because most of the patients were transient tourist workers and thus first-time mango pickers. They are therefore unlikely to have had previous exposure.

Mango dermatitis can mostly be prevented by use of splash-proof clothing and gloves. During this surge of mango dermatitis, Katherine Hospital released a statement to the local media and mango industry. The 2013 season did not yield the same level of presentations.

Our experience highlights the non-benign nature of mango dermatitis and the public health role of all medical practitioners. Prompt communication with industry and workplace safety agencies can reduce morbidity and local health care burden.

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- 1 Sareen R, Shah A. Hypersensitivity manifestations to the fruit mango. *Asia Pac Allergy* 2011; 1: 43-49.
- 2 Calvert M, Robertson I, Samaratunga H. Mango dermatitis: allergic contact dermatitis to *Mangifera indica*. *Australas J Dermatol* 1996; 37: 59-60.
- 3 Hershko K, Weinberg I, Ingber A. Exploring the mango-poison ivy connection: the riddle of discriminative plant dermatitis. *Contact Dermatitis* 2005; 52: 3-5. □

## Harms unknown: health uncertainties cast doubt on the role of unconventional gas in Australia's energy future

**TO THE EDITOR:** Coram and colleagues' article makes a valuable contribution to understanding the health impacts of unconventional gas

mining, highlighting the uncertainties and invoking the precautionary principle.<sup>1</sup> In the absence of sufficient well designed epidemiological studies, information is nevertheless accumulating about its impacts on environmental determinants of health, particularly clean air and water.

Despite the incidence of spills, leaks and accidents, the industry has consistently downplayed the risk of aquifer contamination. Yet, in the United States, the US Environmental Protection Agency has documented detection of chemicals "consistent with gas production and hydraulic fracturing fluids" in an aquifer supplying a Wyoming gas-field community.<sup>2</sup> Affected well owners were advised to use alternative sources of water for drinking and cooking and adequate ventilation when showering.

More recently, there has been documented contamination of an aquifer in New South Wales by a coal seam gas (CSG) operation, confirmed by the NSW Environment Protection Authority.<sup>3</sup> Levels of heavy metals and uranium were found to be elevated in groundwater adjacent to a pond holding produced water (a by-product of gas mining). It is thought that saline produced water leaked out of the pond, mobilising elements from the soil into the groundwater. Numerous leaks or spills of produced water previously occurred at the same operation under a different operator.<sup>4</sup> In this instance, there was no direct threat to potable water, livestock or crops. However the current operator is involved in a project elsewhere to use treated CSG water to irrigate crops for cattle fodder, and a trial in Queensland to reinject treated CSG water into Roma's drinking water aquifer.<sup>4</sup>

High-salinity CSG water can have significant impacts on waterways and soils.<sup>4,5</sup> We cannot yet be certain that all contaminants will be removed by current treatment processes.<sup>4,5</sup> CSG water may be used treated, untreated or blended with fresh water for watering livestock or fodder.<sup>4</sup> Meat and Livestock Australia warns landowners about the potential for contamination of soil, pasture, groundwater and



impacts on water and food security are real concerns



Carey et al



"livestock which, if then processed and consumed, could cause illness".<sup>6</sup> Thus, impacts on water and food security are real concerns. Australian doctors have been raising these and other health concerns about the risks of unconventional gas for some time.<sup>7-9</sup>

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- 1 Coram A, Moss J, Blashki G. Harms unknown: health uncertainties cast doubt on the role of unconventional gas in Australia's energy future. *Med J Aust* 2014; 200: 210-213.
- 2 United States Environmental Protection Agency. EPA releases draft findings of Pavillion, Wyoming ground water investigation for public comment and independent scientific review [news release]. 8 Dec 2011. <http://yosemite.epa.gov/opa/admpress.nsf/20ed1dfal751192c8525735900400c30/ef35bd26a80d6ce3852579600065c94e!OpenDocument> (accessed Mar 2014).
- 3 NSW Government. Questions and answers on Pilliga Pond Incident. 13 Mar 2014. [http://www.csg.nsw.gov.au/\\_data/assets/pdf\\_file/0018/41535/FactSheet.pdf](http://www.csg.nsw.gov.au/_data/assets/pdf_file/0018/41535/FactSheet.pdf) (accessed Mar 2014).
- 4 Khan S, Kordek G. Coal seam gas: produced water and solids [background paper]. Prepared for the Office of the NSW Chief Scientist and

## LETTERS TO THE EDITOR

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- Engineer. Sydney: University of New South Wales, 2013. <http://www.coal-seam-gas.com/australia/OCSE-Final-Report-Stuart-Khan-Final.pdf> (accessed Mar 2014).
- 5 Khan S. Submission: Inquiry into Coal Seam Gas. Submission No. 330. Sydney: Parliament of New South Wales, Sep 2011. <http://www.parliament.nsw.gov.au/Prod/parlment/committee.nsf/0/3C3983D507EBBE13CA25790D00257814> (accessed Apr 2014).
  - 6 Meat and Livestock Australia. Coal seam gas operations on livestock property — communicate to land owners. <http://www.mla.com.au/files/cbfa101c-c608-4df0-84a6-a2fa01042530/COMMUNIQUE-TO-LANDOWNERS.pdf> (accessed Apr 2014).
  - 7 Carey M. Coal seam gas: future bonanza or toxic legacy? *Viewpoint* 2012; (8): 26-31. [http://www.viewpointmagazine.com.au/download/archive/viewpoint\\_issue8.pdf](http://www.viewpointmagazine.com.au/download/archive/viewpoint_issue8.pdf) (accessed Mar 2014).
  - 8 Carey M, Redmond H, Shearman D, Sheridan J: Doctors for the Environment Australia. Submission: Inquiry into Coal Seam Gas. Submission No. 412. Sydney: Parliament of New South Wales, Sep 2011. <http://www.parliament.nsw.gov.au/prod/parlment/committee.nsf/0/F96D076732225603CA25791B00102098> (accessed Mar 2014).
  - 9 Australian Medical Association. AMA calls for coal seam gas health checks [media release]. 23 May 2013. <https://ama.com.au/media/ama-calls-coal-seam-gas-health-checks> (accessed Mar 2014). □

## The cost of teaching an intern in New South Wales

**TO THE EDITOR:** In gathering their data, Oates and colleagues<sup>1</sup> chose not to include the cost of the learner's time. However, in most cost analyses, learner inputs are accounted for — particularly if the learners are paid (as the interns are). While Oates et al concentrated on the cost of teaching personnel, they did not take into account the cost of facilities, equipment or consumables — which can be substantial. For example, the cost of a professor teaching in a tutorial room would be quite different to the cost of a professor facilitating

a session on a high-technology simulation suite.<sup>2</sup>

Their analysis shows that the costs of formal teaching episodes are considerably higher than the costs of informal episodes, and interns only spend a small proportion of their time attending any form of teaching. However, their data also beg another question that a follow-up study might answer by evaluating the relative effectiveness, benefits or utility associated with the formal and the informal teaching.<sup>3</sup> These measurements of value could then be related back to the costs. The informal episodes could turn out to be highly effective and yet low cost. A greater emphasis on informal teaching on the wards could thus yield higher educational returns and yet be cost neutral.

Many have argued the case for greater integration of service and education in postgraduate medical training.<sup>4</sup> A follow-up study could reveal a result that has been much sought after — a program of practical medical education that is high value and low cost.

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- 1 Oates RK, Goulston KJ, Bingham CM, Dent OF. The cost of teaching an intern in New South Wales. *Med J Aust* 2014; 200: 100-103.
- 2 Zendejas B, Wang AT, Brydges R, et al. Cost: the missing outcome in simulation-based medical education research: a systematic review. *Surgery* 2013; 153: 160-175.
- 3 Walsh K, Levin H, Jaye P, Gazzard J. Cost analyses approaches in medical education: there are no simple solutions. *Med Educ* 2013; 47: 962-968.
- 4 Grant J. The Calman report and specialist training. Calman report builds on the status quo. *BMJ* 1993; 306: 1756. □

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Walsh