LETTERS

Airline security and diabetes
249 George Skowronski

Colonoscopy capacity in selected New South Wales hospitals
249 Shelanah A Fernando, Anne E Duggan, Owen F Dent, Maeve C Eikli

Comparing survival outcomes for patients with colorectal cancer treated in public and private hospitals
250 Niall C Tebbutt
250 Suzanne Kosmider, Ian T Jones, Ian P Hayes, Peter Gibbs
251 Cameron Platell, Melinda Morris, Barry Iacopetta

Use of dermoscopy in Australia
252 Alex J Chamberlain, John W Kelly

Potential link between HMG-CoA reductase inhibitor (statin) use and interstitial lung disease
253 Beatrice A Golomb, Marcella A Evans

The effects of oxygen therapy in patients presenting to an emergency department with exacerbation of chronic obstructive pulmonary disease
253 Andrew W Dent, George A Jelinek, Sandra L Neate, Tracey J Weiland, Ann-Maree Kelly
254 Simon A Joosten, David Smallwood, Mariko S Koh, Louis B Irving, Xiaoning Bu

Attitudes towards cosmetic surgery among university students
254 David J Castle, Riteesh Bookun

Entry tests for graduate medical programs: is it time to re-think?
255 Malcolm H Parker, David Wilkinson, Ray G Peterson, Ieva Z Ozolins, Haida Luke, Jenny Zhang, Gerard J A Byrne
255 Michele A Groves, Jill Gordon, Greg Ryan

Words, words, words
255 Warwick H Ruse
256 Nicholas R Wilcken, Val J Gebski, Anthony C Keech, Rhana Pike

Airline security and diabetes

George Skowronski

To the Editor: Security requirements for air travel have recently become very strict and include limitations on the carriage of medication and medical equipment. International flights to and from Australia are often lengthy, and patients needing regular medication can suffer serious complications without it. Diabetic patients are particularly vulnerable, as illustrated by this case.

A 54-year-old engineer was returning to Australia after a 4-month placement in Norway. He had a history of type 2 diabetes, which had become insulin dependent 5 years previously. His diabetes was well controlled with 40 units of insulin twice daily, and he had no other major medical problems.

At a Norwegian airport, his insulin, needles and syringes were detected on security screening of his cabin baggage. Security staff told him that he was not permitted to carry his insulin or equipment in the cabin without a letter from his doctor and a current valid prescription. The man's protests were to no avail, and he boarded without his insulin.

During the 25-hour journey to Sydney, he developed vomiting, polyuria, sweating and dyspnoea. Despite making cabin staff aware of the underlying problem, he was offered no assistance apart from a steady supply of airsickness bags.

On arrival in Sydney, he was very ill and was taken by ambulance to St George Hospital, where he required admission to the intensive care unit. His pulse rate was 130 beats/min and respiratory rate 30 breaths/min. His urine was strongly positive for ketones and his blood glucose level was 51 mmol/L. Arterial blood gas analysis showed very severe metabolic acidosis with a pH of 6.9, PCO_2 18 mmHg, and HCO_3 4 mmol/L.

His diabetic ketoacidosis was treated conventionally, with aggressive extracellular volume and electrolyte replacement, and insulin by infusion. His condition improved rapidly, and he was discharged home the next day.

Australian doctors and their diabetic patients should be reminded that airline security requirements are now very strict in most countries, and that life-threatening ketoacidosis can readily develop over the course of a flight between Australia and the northern hemisphere. Insulin-dependent patients must continue to take their insulin during these flights and should not board without their supplies.

In Australia, the Department of Transport and Regional Services stipulates that people with medical requirements may carry "prohibited items" such as hypodermic needles, but must also carry a doctor's letter, a medical certificate, or a current National Diabetes Services Scheme card.[1] Supplies should be clearly labelled, carried in a clear plastic bag and declared to security staff before being screened. The United Kingdom Department of Transport[2] and the United States Transportation Security Administration[3] have broadly similar requirements.

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Colonoscopy capacity in selected New South Wales hospitals

Shelanah A Fernando, Anne E Duggan, Owen F Dent and Maeve C Eikli

To the Editor: The recent editorial by Macrae[1] outlined the potential issues facing the rollout of the National Bowel Cancer Screening Program. It is estimated there will be about 5000 additional colonoscopies performed in New South Wales in the first year.[2] To ascertain how the NSW public health system might absorb this increased demand, the Greater Metropolitan Clinical Taskforce (GMCT) Gastroenterology Network conducted a survey in 2006, featuring structured interviews with clinicians. Our aims were to estimate the current capacity of NSW public hospitals to perform colonoscopies and to identify perceived impediments to meeting future demand.

From a total of 113 public hospitals where colonoscopies had been performed in the period 2001–2004,[3] we selected a purposive sample of 32 where there had been at least 500 procedures, or which were regarded as major providers in their area health service. Responses were received from 26 hospitals, which represented 54% of colonoscopies performed in all public hospitals in NSW in 2001–2004[3] and included both metropolitan and rural hospitals. No information was collected from the private sector. Fifteen hospitals had dedicated endoscopy suites, 10 used operating theatres, and one unit used a day surgery centre.

Factors affecting colonoscopy capacity in selected New South Wales public hospitals*

- Most responding units (22/26) regarded additional nursing staff as a medium to high priority requirement
- Increasing time available to existing proceduralists (18/25) and allocating time for new proceduralists (16/25) were regarded as medium to high priorities
- 11/15 hospitals with dedicated endoscopy suites had an unused endoscopy room. Most common reasons were: insufficient funds (5); lack of nurses (5); insufficient equipment, including anaesthetic machines (3); and lack of anaesthetists (2)
- No unit cited a shortage of proceduralists as a reason for the unit not running at full capacity
- "For" (11/24) and "against" (13/24) responses for the addition of procedure rooms were evenly spread across responding facilities
- Prioritisation of colonoscopies over other procedures was not favoured (14/24 ranked this of low importance, 5 as neither low nor high, 5 as medium to high)
- Most important factors impeding capacity were:
  - Lack of approval to recruit nursing staff (18/23)
  - Shortage of nursing staff applicants (16/25)
  - Budgetary limitations (19/25)
  - Insufficient endoscopy time for existing proceduralists (17/25)
  - Insufficient budget to recruit new proceduralists (16/23)
- Only 2/26 units (both using operating theatres) had a data manager recording data and compiling statistics; others (13/26) in dedicated endoscopy suites used commercial reporting systems, such as Endoscribe, however the survey did not determine how systematically and completely data were compiled and reported from these systems

* Some respondents did not answer all questions. ◆

We found that for the majority of these hospitals (23/26), colonoscopy activity is currently at or near maximal capacity, with limited potential for expansion of services. The additional number of colonoscopies that could be accommodated ranged from one to four per week in six hospitals, up to a maximum of eight per week in a single hospital. Reasons for unbooked hours included insufficient funds, and a lack of nurses and anaesthetists.

The Box summarises other key findings, which emphasise that the three major factors limiting activity are insufficient endoscopy nurses, insufficient nursing applicants, and the need for more equipment. Importantly, an absolute shortage of proceduralists was not found to be a restricting factor. Rather, insufficient available colonoscopy time for existing proceduralists was identified as a limitation.

While our survey was successful in clarifying factors that impede optimal performance, the small number of participating hospitals is a relative limitation. Nevertheless, the survey suggests a requirement for additional nursing staff and equipment, and for the establishment of uniform data collection and reporting systems. Areas requiring further exploration include greater unit efficiency, opportunities for workplace redesign, and consideration of inequities in access to anaesthetic cover for patients in public hospitals. The GMCT Gastroenterology Network is currently working on these issues in collaboration with the NSW Department of Health.

Acknowledgements: All clinicians who contributed to the survey gave up their time on a voluntary basis. We thank everyone who contributed, particularly Cameron Bell and John Napoli, who assisted with the pilot studies.

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Comparing survival outcomes for patients with colorectal cancer treated in public and private hospitals

Niall C Tebbutt

To the Editor: I note with interest the results of the study by Morris and colleagues comparing survival outcomes for patients with colorectal cancer treated in public and private hospitals.[1]

Stage of disease is a major determinant of survival in colorectal cancer, yet, as stated in their article, stage of disease was derived solely from pathology reports. I believe that this method would have very limited accuracy in diagnosing stage IV disease. Determining stage IV disease requires additional investigations such as computed tomography, which may either not have been performed before surgery, or the results of which may not have been noted on the pathology request form. Underdiagnosis of stage IV disease appears likely, as the incidence of stage IV disease of about 10% noted in this study is substantially less than the 20%–25% incidence observed in other epidemiological studies.[2] Moreover, the limitations associated with the use of pathology reports to determine stage IV disease have been observed by other investigators.[3]

Although this study evaluates an interesting question in relation to the management of colorectal cancer, the significant possibility of an imbalance of important prognostic factors (such as tumour stage) between public and private patients creates major doubt about its conclusions.

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Suzanne Kosmider, Ian T Jones, Ian P Hayes and Peter Gibbs

To the Editor: We suggest that marked differences in comorbidities could be one explanation for the superior outcomes for patients with colorectal cancer treated in private hospitals as reported in the study by Morris et al.[1] We also have concerns about the quality of the data used in their study.

We used a comprehensive prospective database to examine a cohort of Victorian patients treated at the Royal Melbourne Hospital ($n = 260$) and the adjacent Melbourne Private Hospital ($n = 118$) between 2003 and 2006. Specifically, we included data on important patient variables that were not considered in the Western Australian series (Box). These data showed a clear bias towards improved postoperative and long-term survival outcomes for patients in the private system, independent of cancer treatment. Significantly, diabetes, which affected a much larger proportion of public than private hospital patients, is also associated with inferior cancer-specific outcomes.[2] Together, these results could explain the differences reported by Morris et al. In support of this, the 5-year cancer-specific survival rates they report for stage I cancer in the two hospital groups is similar (89% public versus 92% private), but the overall survival rates are markedly different (74% public versus 85% private) — consistent, we contend, with an excess of non-cancer deaths in public patients.

Morris et al also report an imbalance in the receipt of adjuvant chemotherapy between public and private patients, possibly a marker of inequality of care. We analysed prospectively collected data for our patients with stage III colon cancer, where adjuvant chemotherapy has a proven impact on survival. As shown in the Box, a similar percentage were offered, accepted and completed adjuvant chemotherapy, suggesting, in Victoria at least, similar access to care and support for public and private patients.

The pathology-based staging used by Morris et al may also be inaccurate, as recording of stage IV disease relies on the surgeon noting this on the pathology request form and patients having been fully evaluated before surgery (we contend that preoperative computed tomography scanning would not have been routine). This may explain the relatively low percentage of patients recorded as having stage IV disease (12% public; 9% private) compared

Comparison of public and private hospital patients with colorectal cancer

	Public hospital	Private hospital	*P*
Number of patients	277	122	
Smoker	141 (51%)	16 (13%)	< 0.001
Diabetes	57 (21%)	8 (7%)	0.002
Emergency presentation	22 (8%)	2 (2%)	0.02
ASA score*			
1	28 (10%)	36 (30%)	
2	131 (47%)	32 (26%)	
3	89 (32%)	22 (18%)	
4	15 (5%)	0	
Unknown	14 (5%)	32 (26%)	
Stage III colon cancer	64	38	
Chemotherapy advised	50 (78%)	30 (79%)	0.22
Patient followed advice	44 (88%)	29 (97%)	0.12
Chemotherapy completed	28 (64%)	21 (72%)	
Chemotherapy not completed	16 (36%)	8 (28%)	
Toxicity	7 (44%)	3 (38%)	
Patient request	4 (25%)	0	
Ongoing computed tomography	3 (19%)	4 (50%)	
Other	2 (12%)	1 (12%)	

* American Society of Anesthesiologists physical status score. ◆

with 17% in our combined series in which prospective clinicopathological staging was used.

Finally, inaccurate data are suggested by the reported 5-year overall survival figures for patients with stage IV cancer (17% in private care).[1] That this is superior to figures reported in recent clinical trials is an unexpected finding, particularly as clinical trials enrol only a select subset of patients and provide access to novel combination chemotherapy, and presentation with metastatic disease is an adverse prognostic factor.

Acknowledgements: We acknowledge the support provided by Julie Johns and Ngio Murigu, research coordinators at the Royal Melbourne Hospital.

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Cameron Platell, Melinda Morris and Barry Iacopetta

In reply: The first issue is whether we accurately identified patients with stage IV disease, as the incidence in our study was only 11% and the anticipated incidence is normally 20%–25%. We agree that simply reviewing pathology reports would tend to underdiagnose stage IV disease. However, all patients were crosschecked to the linked database to see if they had had a computed tomography scan or ultrasound image showing metastatic disease. In addition, we only reviewed patients whose primary cancer was resected. This excluded about a third of all the patients with stage IV disease. In my (CP) own surgical prospective colorectal cancer database of 781 patients, (1996 to 2007), 24% of the 185 referred with colorectal cancer had stage IV disease (private hospital patients, 21% v public hospital patients, 25%). Resection of the primary cancer was only undertaken in 126 of the 185 patients with stage IV disease (68%). Therefore, only 16% of all patients with colorectal cancer who had resections had stage IV disease (126/781).

Tebbutt argues that there could be a possibility of some imbalance between public and private patients based on this observation. We argue that the difficulty in diagnosing stage IV disease applies equally to public and private patients. Similarly, my own database does not show a significant difference in the incidence of stage IV disease between public and private hospital patients.

Kosmider et al report that, at their own institution, completion rates for chemotherapy for stage III colon cancers are the same for public and private patients, "... suggesting, in Victoria at least, similar access to care and support for public and private patients". These results are hardly comparable with our study. Their observations are limited to a select subgroup and only relevant to a small section of the Victorian population, where there is a collocated public and private hospital. In contrast, our study included the entire population of Western Australia, and all public and private hospital patients. Interestingly, we noted wide variations in the rates at which chemotherapy was used, not only between public and private hospitals, but also between individual hospitals. We also noted that there are few collocated public and private hospitals within WA. The fact remains that, at a population level, public hospital patients in WA were less likely to receive chemotherapy.

Finally, Kosmider et al raise the issue that comorbidities can influence overall and cancer-specific survival (especially in relation to diabetes). We recognise this as a weakness of our study, and highlighted it in the discussion. Nonetheless, we did include a number of measures of social disadvantage in the analysis. Such measures can act as surrogate markers of common comorbidities. For example, there is a fairly clear association between type 2 diabetes and disadvantage.[1] We therefore do not believe that comorbidities can account for all of the observations seen in our study. Our conclusion therefore remains — that patients with colon and rectal cancer treated in private hospitals in WA had superior outcomes. In reality, given the inequities between the two systems, is this really so surprising?

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Use of dermoscopy in Australia

Alex J Chamberlain and John W Kelly

To the Editor: Menzies' recent editorial[1] highlights the clear benefits of dermoscopy in the assessment of pigmented lesions. This is well appreciated by anyone who uses this inexpensive handheld tool on a day-to-day basis (its retail price ranges from A$380 to A$1840). Although the potential value of the device has been documented in both specialist and general practice settings, it would seem that most Australian general practitioners aren't using this valuable technology.

We recently surveyed 223 predominantly Victorian GPs (at a dermatology symposium for GPs, Melbourne, August 2006) and a cross-section of 179 Australian dermatologists (at the 39th Annual Scientific Meeting of the Australasian College of Dermatologists, Melbourne, May 2006) on their use and perceptions of the value of dermoscopy (Box). The surveys were conducted at the end of dermoscopy seminars using electronic keypads that generated live feedback to questions posed.

The sample of dermatologists represented about 56% of all practising fellows of the Australasian College of Dermatologists and should thus be reasonably representative. On the other hand, we acknowledge that the sample of GPs may have been biased towards those with a particular interest (and more experience) in the area of skin cancer and dermatology — or, alternatively, biased towards novice GPs seeking more experience in the area.

Participation rates in each survey were over 90%. The majority of both groups of clinicians who reported using dermoscopy felt that it influenced their clinical diagnosis. However, only a third of GPs reported using dermoscopy as a diagnostic aid, in contrast with the vast majority of dermatologists (95%), who were regular users.

While there was a difference between the instrument preferred by GPs (the Welch Allyn EpiScope [Welch Allyn Inc, Skaneateles Falls, NY, USA]) and by dermatologists (the Heine Delta 20 Dermatoscope [Heine Optotechnik, Herrsching, Germany]), any one of the commercially available dermoscopes would be suitable for the novice user. The popularity of the Heine system is mostly due to its brighter light-emitting-diode illumination and adaptability to compact digital cameras. Although there is a general perception that non-polarised immersion contact dermoscopes offer superior imaging (this was reflected in the most popular choices from our survey), newer polarised non-contact dermoscopes are increasingly popular, and some of the earlier models are inexpensive. Polarised dermoscopes, such as the DermLite range of instruments (3Gen, LLC [San Juan Capistrano, Calif, USA]), offer the advantages of creating less mess (immersion fluid is not required) and better resolution of vascular structures. However, certain features critical for diagnosis of melanoma may be harder to appreciate with polarised systems (eg, the presence of regression structures or blue–white veil).[2]

The use of dermoscopy is fairly mainstream among dermatologists in continental Europe (Giuseppe Argenziano, Assistant Professor, Department of Dermatology, Second University of Naples, personal communication), where the technology was first established in the 1980s. However, dermatologists in the United States have been slow to embrace the technology: only 17% of dermatologists surveyed in a 2001 study were using the tool.[3]

In our personal experience, there is an increasing demand from Australian GPs for dermoscopic educational seminars. Given the high incidence of skin cancer in Australia, and the important role that Australian GPs play in managing the disease, we support Menzies' assertion that training and familiarity with dermoscopy should be a priority.[1]

Survey of use and value of dermoscopy among Australian general practitioners and dermatologists

	GPs ($n = 223$)	Dermatologists ($n = 179$)
Never use dermoscopy	66%	5%
Favoured instrument	Welch Allyn EpiScope (41%)	Heine Delta 20 Dermatoscope (32%)
Use computer-assisted dermoscopy	5%	3%
Claim that dermoscopy influences diagnosis	75%	97%

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Potential link between HMG-CoA reductase inhibitor (statin) use and interstitial lung disease

Beatrice A Golomb and Marcella A Evans

To the Editor: Walker and colleagues recently reported a series of patients with interstitial pneumonitis following use of statin cholesterol-lowering drugs.[1] They state that other investigators have previously reported biopsy findings resembling amiodarone-induced pulmonary toxicity in pneumonitis associated with statin therapy. We believe this observation is pivotal to understanding the authors' findings.

Amiodarone produces mitochondrial toxicity, which is recognised to be a potential initiating event in amiodarone-induced pulmonary toxicity.[2] Statins also produce mitochondrial toxicity in vulnerable individuals. Adverse effects of statins on muscle have been linked to mitochondrial abnormalities,[3] and other clinical manifestations of statin mitochondrial toxicity have been reported.

Mitochondrial respiratory chain disease is famously protean in its manifestations, but most classically produces a mitochondrial encephalomyopathy — with muscle, brain, or both affected. Consistent with this, muscle and cognitive symptoms are the most widely reported adverse effects in our reporting database of statin adverse effects (comprising 2478 patients to date), and these symptoms frequently occur together, consistent with a common mechanism.

Statin–amiodarone combinations have produced heightened toxicity relative to each agent alone. Interference with cytochrome P450 metabolism has been the presumed mechanism,[4] but additive or synergistic mitochondrial toxicity may also be a factor.

The occurrence of amiodarone-like interstitial pulmonary disease in statin users adds to concerns that a range of clinical presentations of mitochondrial toxicity may ultimately be reported with statins in susceptible individuals, with mitochondrial heteroplasmy and threshold effects determining the specific manifestations.[5]

Competing interests: The work we cite in this letter is funded by a Robert Wood Johnson Generalist Physician Faculty Award to Beatrice Golomb. The funding source had no role in study design, data collection, analysis and interpretation, or writing and publication of this letter.

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The effects of oxygen therapy in patients presenting to an emergency department with exacerbation of chronic obstructive pulmonary disease

Andrew W Dent, George A Jelinek, Sandra L Neate, Tracey J Weiland and Ann-Maree Kelly

To the Editor: While Joosten et al highlight the uncommon but serious problem of potential carbon dioxide (CO_2) narcosis after emergency management of respiratory illness,[1] it is important that their findings are kept in perspective and do not lead to inadequate administration of oxygen to patients with acute dyspnoea.

Their findings are based on a retrospective chart review. The main claim that the administration of oxygen causes increased length of hospital stay and possibly death for those presenting to emergency departments with exacerbation of chronic obstructive pulmonary disease (COPD) can be challenged by selection bias, sample size, assessment of severity of illness, and the definition of clinically significant hypercapnia.

Ninety per cent of their study patients arrived by ambulance, presumably indicating the relatively sudden onset of acute distressing symptoms — a call for urgent help, not the "killing me slowly" drowsiness and confusion of CO_2 retention. Of those who received more than 4 litres of oxygen (O_2) per minute, 57% (16 of 28) were in triage category 1 and 2, but only 31% (4 of 13) of those who received O_2 at a lower flow rate were in triage category 1 and 2. Sixty per cent (12 of 20) of those with a high partial pressure of arterial oxygen (PaO_2), when measured after arrival and treatment were in triage category 1 or 2, but only 14% (3 of 21) of those with a lower PaO_2 were in triage category 1 or 2 ($P = 0.002$; Fisher's exact test). Clearly the first group was a sicker group on arrival, and the increased length of stay of these patients was more likely to be the result of this, rather than of O_2 therapy supervised by emergency specialists in an emergency room of a teaching hospital.

The contention that oxygen therapy in emergency departments is "often uncontrolled" is not supported by any data supplied. Critical care staff, including ambulance and emergency personnel, are acutely aware of the challenges posed by patients with chronic respiratory disease. However, they are also aware of the need to achieve adequate oxygenation in patients with acute dyspnoea. Patients are observed closely for signs of *clinically significant* hypercapnia and respiratory support is adjusted accordingly. Some patients may require a higher fraction of inspired oxygen (FiO_2), particularly in the initial phases of care, to achieve this. As the patient's condition improves, the FiO_2 is often reduced. The methods in the study by Joosten et al fail to account for this. Respiratory rate, for example, was not reported.

Treating the patient, not the chart, is of most importance. It would be a pity if the article by Joosten et al resulted in the withholding of oxygen from acutely dyspnoeic patients with a rapid respiratory rate and adequate respiratory drive because of some fear that they could be retaining CO_2.

We agree that a better and seamless patient-centred information system with cooperation between sectors of the health

system, the patient, the patient's general practitioner, and ambulance, emergency and in-hospital services, would assist in identifying those at risk of CO_2 narcosis and improve patient care.

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Simon A Joosten, David Smallwood, Mariko S Koh, Louis B Irving and Xiaoning Bu

In reply: We performed a retrospective audit as part of a quality improvement program following a number of serious adverse events in various areas of our hospital. Our article showed that carbon dioxide retention in acute exacerbation of chronic obstructive pulmonary disease (AECOPD) is common (41 of 65 patients admitted with chronic obstructive pulmonary disease [COPD] over 4 months), and that guidelines on blood gas measurement and oxygen use were not being followed.

Dent and colleagues state that more patients in our study who received more than 4 litres of oxygen per minute were in a triage category that indicated a more serious condition. However, the multivariate analysis showed that triage category did not predict length of stay. In contrast, partial pressure of arterial oxygen (PaO_2) did, and patients with a PaO_2 of less than 74.5 mmHg (range, 36.7–74.0 mmHg) had a shorter length of stay than those with a PaO_2 of 74.5 mmHg or higher (range, 74.5–452.0 mmHg). Many patients had a PaO_2 much higher than neccessary to achieve a haemoglobin saturation of about 90%.

Dent and colleagues state that our data did not support the claim that oxygen therapy is often uncontrolled in the emergency setting. In fact, only 68% of the patients receiving more than 4 litres of oxygen per minute had arterial blood gas measurements performed.

We agree with Dent et al that the management of AECOPD may not be as simple as following guidelines. However, we hope to raise awareness of the fact that hypercapnia in COPD is common, requires careful assessment, and that oxygen therapy should be titrated to physiological endpoints.

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Attitudes towards cosmetic surgery among university students

David J Castle and Riteesh Bookun

To the Editor: Cosmetic surgery has grown in appeal over the past few years, and more and more procedures are being performed. However, the literature on attitudes towards cosmetic surgery is scant. Here, we report the results of a cross-sectional study that assessed Australian university students' attitudes towards, and experiences of, cosmetic surgery.

Preclinical students from the faculty of medicine at the University of Melbourne were chosen to participate, as they formed a fairly homogeneous group and were considered at a higher risk of experiencing appearance concerns than the general population.[1,2] Students from clinical years were excluded, as their greater exposure to clinical medicine could have impacted on their attitudes towards cosmetic surgery. Participants completed a questionnaire that covered their experience of and familiarity with a range of cosmetic procedures, as well as attitudes towards cosmetic procedures.

About 320 students were approached for this study, and 284 agreed to participate (45% male; age [mean ± SD], 20.8 ± 3.4 years; body mass index [mean ± SD], 21.9 ± 2.7 kg/m^2). Respondents noted a high degree of familiarity with cosmetic enhancement procedures (Box); only 8% were not familiar with any procedures. Thirty-six per cent knew someone who had had cosmetic surgery and 11% knew at least one person in their family who had had cosmetic surgery. Only four respondents (1%) had themselves had cosmetic surgery.

Many respondents were fearful of undergoing surgical procedures (53% "agreed" or "strongly agreed"). Over a third disapproved of people surgically altering their appearance for reasons of self-esteem (36%) or to feel better about themselves (35%), and 38% thought cosmetic surgery was a waste of money. Most respondents (63%) indicated they would be embarrassed to let others know if they had had such surgery, although 52% believed that appearance was an important facet of a person. The majority (70%) would not consider cosmetic surgery in later years, even if their partner wished them to (79%).

Proportion of students familiar with cosmetic enhancement procedures

Procedure	Proportion of students
Lipoplasty	83%
Botox injections	82%
Facelifts	78%
Breast augmentation	78%
Rhinoplasty	73%
Breast reduction	71%
Abdominoplasty	69%
Cellulite treatment	48%
Chemical peels	47%
Blepharoplasty	41%

These findings are in stark contrast to a United States study of female college students, which found that about 5% of participants had undergone cosmetic surgery, 67% knew someone who had received a cosmetic surgical intervention, and around 33% had a family member who had undergone cosmetic surgery.[3] Overall, their attitudes to cosmetic procedures were much more favourable, which might reflect a greater acceptance, availability and prevalence of cosmetic surgery in the US.

Our findings have relevance for the future Australian medical workforce, and suggest that broader issues relating to body image should be covered in the medical curriculum.

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Entry tests for graduate medical programs: is it time to re-think?

Malcolm H Parker, David Wilkinson, Ray G Peterson, Ieva Z Ozolins, Haida Luke, Jenny Zhang and Gerard J A Byrne

To the Editor: We are concerned about aspects of the study of selection predictors of medical school performance in Australian medical schools by Groves et al,[1] and how they may be interpreted.

A "voluntary" response rate of 13.6% is very small and unlikely to be representative, and selection or response bias is likely. Although noted by the authors, this fundamental flaw may be overlooked in interpreting the results. This aside, of what value is the outcome measure of clinical reasoning skills among students, some of whom are only in second year, and whom we would not expect to have developed substantial expertise in clinical reasoning at this early stage?

More significantly, we consider that the research question itself may be flawed, as we are not at all convinced that selection scores are intended to predict relative performance in programs. Groves et al, of course, show that, in fact, they do not.

Selection serves two purposes, one obvious and the other questionable. The first is to reduce the large pool of well qualified students to the available number of places. The second is the Holy Grail of selection: attempting to select those best suited to success in medicine. The key problem is that nobody can fully define, let alone measure, such success, other than in the negative terms of professional misconduct after graduation.[2] Moreover, medicine offers a wide range of careers requiring different attributes, making a broad range of entry characteristics beneficial to the profession and the community at large, and putting in question the pursuit of a profile of critical criteria.

Further research is needed, involving large, representative samples to confirm or discount putative outcome measures, but most medical students succeed in medical school and do not create problems as doctors, indicating that we are currently getting more of this right than wrong. If the predictive value of entry attributes for (often questionable) outcomes is modest at best, and if we teach and assess communication skills, clinical reasoning and professionalism during the programs, does it not make sense to focus our energies and resources more effectively there, and relinquish our continuing anxiety over selection? We should remember what motivated the flurry of activity towards more complex selection processes in the first place: concern over communication by doctors, failure in aspects of professionalism, and to a much lesser extent, clinical competence.

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1 Groves MA, Gordon J, Ryan G. Entry tests for graduate medical programs: is it time to re-think? *Med J Aust* 2007; 186: 120-123.
2 Papadakis MA, Teherani A, Banach MA, et al. Disciplinary action by medical boards and prior behaviour in medical school. *N Engl J Med* 2005; 353: 2673-2682. ❑

Michele A Groves, Jill Gordon and Greg Ryan

In reply: The limitations of our study have been acknowledged, and we agree with Parker and colleagues that further research is needed. However, their proposition that selection scores may not be intended to predict relative performance in programs seems at odds with their recommendation to select principally on the basis of academic performance. If selection scores do not provide predictability, why bother establishing any criteria at all? Why not simply use a lottery system, as they have been claimed to be equally effective?[1]

Although our study did not set out to evaluate the relative merits of cognitive versus non-cognitive criteria for selecting medical students, surely the first question to be decided is whether non-cognitive characteristics, including interpersonal skills, attitudes and behaviour, are important in medical practice and should be considered in selecting future doctors. If so, then the next question is how best to select students with these characteristics or, at least, the capacity to develop them during their medical training. The selection processes of most medical schools indicate that the answer to the first question is "yes". In answering the second question, not only the validity of the chosen method, but its feasibility in terms of cost and effectiveness need to be considered.

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1 Coebergh J. Dutch medical schools abandon selection for lottery system for places. *Student BMJ* 2003; 11: 138. ❑

Words, words, words

Warwick H Ruse

To the Editor: Could I use a tiny fragment of a recent article as springboard to a plea for a change in terminology?

Wilcken et al refer to two observations on the use of tamoxifen changing clinical practice, "and thousands of lives were potentially saved".[1] Are we fooling ourselves? Surely it is more accurate to say, in the situation of breast cancer in lives already well advanced, that thousands of deaths were postponed? "Humankind cannot bear very much reality."[2]

Could we leave "lives saved" to the populist sensationalist media, and only use it in medicine for interventions in trauma, and possibly infection, in young people whose life expectancy is otherwise so good that their life has been truly "saved"?

". . . speech impelled us to purify the dialogue of the tribe and urge the mind to aftersight and foresight . . ."[3]

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3 Eliot TS. Little Gidding (Four quartets. No. 4). In: Collected poems 1909–1962. London: Faber and Faber, 1963: 218. ❑

Nicholas R Wilcken, Val J Gebski, Anthony C Keech and Rhana Pike

In reply: We agree that attention to terminology is important, and that claims about potential medical advances are often exaggerated. On the other hand, on the rare occasions when things go really well, we should not hide our light under a bushel.

In the overview cited in our article, the risk of death 15 years after diagnosis was about 35% for the controls and about 25% for those who were given tamoxifen for 5 years[1] — a reduction in the death rate of about a third. Another example is the finding from the earliest chemotherapy trials that significantly more women in the treatment arms were alive nearly 30 years later,[2] showing that postoperative systemic therapy can have very long-lasting effects on the chances of being alive or dead. Over the years, this adds up to a lot of women not dead from breast cancer.

However, whether these are really "lives saved" may be more a philosophical than a medical question. It is true that, despite decades of research and billions of dollars spent, the mortality rate remains at 1.0 per person, and death still consumes much of our thoughts.[3] Rather than "lives were potentially saved", perhaps a compromise could have been the less poetic "breast cancer deaths were avoided".

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