

Seizures as the presenting feature of rickets in an infant	
Graeme H Johnson, Francis Willis	467
Christopher T Cowell	467
<i>Staphylococcus aureus</i> and stethoscopes	
Karina J Kennedy, Dianne E Dreimanis, Wendy D Beckingham, Francis J Bowden	468
Prescriptions for antipsychotics in general practice	
Christopher M Harrison, Helena C Britt	468
Hepatitis risk and vaccination among Australian travellers overseas	
Nicholas A Zwar, on behalf of the Travel Health Advisory Group	469
The decline in bulk-billing and increase in out-of-pocket costs for general practice consultations in rural areas of Australia, 1995–2001	
Warwick H Ruse	470
Chris A Harrison	470
Peter C Arnold	470
Anne F Young, Annette J Dobson	471
“Self-experimentation” in vulnerable populations	
Allen C Cheng	471
The New South Wales Medical Board policy on treating self and family	
G Douglas Tracy	471
Brian C McCaughan	472

Seizures as the presenting feature of rickets in an infant

Graeme H Johnson,* Francis Willis†

*Resident Medical Officer, Princess Margaret Hospital for Children; currently, Acting Public Health Medical Officer, Kimberley Population Health Unit, Derby, WA 6728. †Paediatrician, Princess Margaret Hospital for Children, WA. graeme.johnson@health.wa.gov.au

TO THE EDITOR: An 8-month-old girl, born in Perth, Western Australia, who received only breast milk feeds for her first six months of life, was referred urgently to Princess Margaret Hospital for Children (the tertiary paediatric hospital in Western Australia) for investigations of seizures. Her parents described the seizures as episodic, involving all limbs, lasting less than five minutes and occurring over the 10 days before presentation.

At presentation, the infant had carpopedal spasm. She was afebrile, and a septic screen gave negative results. Venous blood gas analysis showed a low ionised serum calcium level of 0.71 mmol/L (reference range [RR], 1.13–1.32 mmol/L). An x-ray film of her wrists showed signs of rickets, with cupping and fraying of the distal metaphyses of both radius and ulna. Other blood tests revealed elevated parathyroid hormone levels of 8.6 pmol/L (RR, 0.80–8.00 pmol/L), an elevated alkaline phosphatase level of 523 U/L (RR, 100–350 U/L), and an extremely low level of serum 25-hydroxyvitamin D₃ (25OHD₃) of 5 nmol/L (RR, 30–150 nmol/L).

The infant responded to treatment with an infusion of 0.5 mg/kg of calcium gluconate and a 4-month oral course of 0.2 µg calcitriol daily. After treatment commenced, she did not have any further seizures. Radiography performed 4 months later showed increasing calcium deposition at the distal metaphyses of the radius and ulna.

Seizures are described as a presenting feature of hypocalcaemia in vitamin D deficiency rickets.^{1,2} Ultraviolet radiation and/or dietary vitamin D are required to prevent rickets in children. Perth, Western Australia, located at latitude 32° South has an average daily sunshine duration of at least five hours per day. However, even with this amount of sunshine, vitamin D deficiency can still occur in people who, for various reasons, receive little or no

sun exposure, especially if their skin is darkly pigmented, and who have an inadequate dietary intake of vitamin D. The girl's mother, who wore a veil and clothing which protected her body from exposure for religious reasons, had a serum 25OHD₃ level of 7 nmol/L. Breast milk is a poor source of dietary vitamin D, especially when the lactating woman is vitamin D deficient.³

In Australia, vitamin D deficiency rickets in infants of parents who have migrated from Mediterranean, African, Middle Eastern and southern Asian regions has been reported since the 1960s.^{4,5} Education of healthcare providers and their patients about the requirement for sunlight exposure or dietary supplementation to prevent vitamin D deficiency rickets needs to continue.

1. Bachrach S, Fisher J, Parks JS. An outbreak of vitamin D deficiency rickets in a susceptible population. *Pediatrics* 1979; 64: 871-877.
2. Hoecker CC, Kaneyage JT. Recurrent febrile seizures: an unusual presentation of nutritional rickets. *J Emerg Med* 2002; 23: 367-370.
3. Welch TR, Bergstrom WH, Tsang RC. Vitamin D deficient rickets: the reemergence of a once conquered disease. *J Pediatr* 2000; 137: 143-145.
4. Lipson T. Epidemic rickets in migrant families in Melbourne and Sydney. *J Pediatr Child Health* 1995; 31: 483-484.
5. Nozza JM, Rodda CP. Vitamin D deficiency of infants with rickets. *Med J Aust* 2001; 175: 253-255. □

Christopher T Cowell

Clinical Associate Professor, Institute of Endocrinology and Diabetes, The Children's Hospital at Westmead, Locked Bag 4001, Westmead, NSW 2145. chris@chw.edu.au

COMMENT: Nutritional rickets is highly prevalent in countries such as Mongolia, Tibet and China¹ where winter sunlight is reduced and there is no universal vitamin D supplementation. Paradoxically, rickets is also prevalent in developing countries in the tropics and subtropics where sunlight is unlikely to

be a limiting factor. Low calcium intakes (including vegetarian diets), prolonged breast feeding, and covering of the skin may all contribute.^{2,3}

Published reports and clinical experience in Sydney suggest an increase in prevalence of rickets, especially in infants and mothers in immigrant populations.^{2,4-7} Other Western countries have reported similar findings. The vitamin D deficiency described by Johnson and Willis in an infant in Perth highlights a high-risk group — infants of mothers who are veiled. Treatment of associated nutritional deficiencies, especially iron deficiency,^{4,5} and giving a minimum of 300 000 IU of vitamin D over 6–8 weeks, should resolve the rickets. Data on the epidemiology of vitamin D deficiency in these high-risk groups in Australia and other Western societies are lacking and should be the subject of future research.

The major source of vitamin D and its circulating form, 25-hydroxyvitamin D₃ (25OHD₃), in children and adults is the skin. It is estimated that exposure to sunlight for 15 minutes three times per week normalises 25OHD₃ levels.⁸ Dark skin, increasing age, sun protection agents, and the angle of the sun in winter will attenuate this increase in 25OHD₃.⁸ Neonates acquire their vitamin D₃ stores from their mothers via the placenta, with only a small amount transferred in breast milk.⁹

By screening high-risk pregnant women, specifically veiled women and those with dark skin,^{10,11} prevention of most cases of infant rickets is possible. Levels of 25OHD₃ should be measured and, if low, the mother should receive 4000 IU of vitamin D daily until 25OHD₃ levels are normal. There is

Correspondents

We prefer to receive letters by email (editorial@ampco.com.au). Letters must be no longer than 400 words and must include a word count. All letters are subject to editing. Proofs will not normally be supplied. There should be no more than 4 authors per letter. Each author should provide current qualifications and position and full details of postal address, telephone and facsimile numbers.

There should be no more than 5 references. The reference list should not include anything that has not been published or accepted for publication. Reference details must be complete, including: names and initials for up to 4 authors, or 3 authors et al if there are more than 4 (see mja.com.au/public/information/uniform.html#refs for how to cite references other than journal articles).

currently no recommendation for routine supplementation of vitamin D in infants, and most cereals and foods are not fortified with vitamin D. However, infant formulas are supplemented with 200 IU of vitamin D per litre. It is estimated that sufficient vitamin D levels to prevent rickets could be achieved if 400 IU of vitamin D were provided daily as part of a multivitamin supplement to high-risk infants.

1. Du X, Greenfield H, Fraser DR, et al. Vitamin D deficiency and associated factors in adolescent girls in Beijing. *Am J Clin Nutr* 2001; 74: 494-500.
2. Pettifor JM. Rickets. *Calcif Tissue Int* 2002; 70: 398-399.
3. Thacher TD, Fischer PR, Pettifor JM, et al. A comparison of calcium, vitamin D, or both for nutritional rickets in Nigerian children. *N Engl J Med* 1999; 341: 563-568.
4. Kreiter SR, Schwartz RP, Kirkman HN Jr, et al. Nutritional rickets in African American breast-fed infants. *J Pediatr* 2000; 137: 153-157.
5. Pillow JJ, Forrest PJ, Rodda CP. Vitamin D deficiency in infants and young children born to migrant parents. *J Paediatr Child Health* 1995; 31: 180-184.
6. Abrams SA. Nutritional rickets: an old disease returns. *Nutr Rev* 2002; 60: 111-115.
7. Mason RS, Diamond TH. Vitamin D deficiency and multicultural Australia. *Med J Aust* 2001; 175: 236-237.
8. Holick MF. Vitamin D: the underappreciated D-lightful hormone that is important for skeletal and cellular health. *Curr Opin Endocrinol Diabetes* 2002; 9: 87-98.
9. Clements MR, Fraser DR. Vitamin D supply to the rat fetus and neonate. *J Clin Invest* 1988; 81: 1768-1773.
10. Grover SR, Morley R. Vitamin D deficiency in veiled or dark-skinned pregnant women. *Med J Aust* 2001; 175: 251-252.
11. Nozza JM, Rodda CP. Vitamin D deficiency in mothers of infants with rickets. *Med J Aust* 2001; 175: 253-255. □

Staphylococcus aureus and stethoscopes

Karina J Kennedy,* Dianne E Dreimanis,† Wendy D Beckingham,‡ Francis J Bowden§

*Registrar, Infectious Diseases Unit; †Infection Control Nurse; ‡Infection Control Nurse; §Professor of Medicine (corresponding author), Academic Unit of Internal Medicine, Australian National University Medical School, Canberra Hospital, PO Box 11, Woden, ACT 2606. frank.bowden@act.gov.au

TO THE EDITOR: It has been well established that improved compliance in hand washing significantly reduces hospital-acquired infections and cross transmission of methicillin-resistant *Staphylococcus aureus*.¹ Although there have been no reports of infections resulting from cross-contamination via stethoscopes, studies have demonstrated that 80%–100% of these appliances are colonised by bacteria.²⁻⁵ However, most of the organisms isolated are considered non-pathogenic. The most common potentially pathogenic organism isolated from stethoscopes is *S. aureus*, with a prevalence of

4.2%–27.5%.²⁻⁵ Cleaning with either 70% isopropyl alcohol or benzalkonium chloride wipes can reduce the bacterial count on stethoscopes by 94%–100%.^{3,5}

We undertook a study to assess the prevalence of *S. aureus* carriage on stethoscopes and hands of staff of the Canberra Hospital, and to measure the effectiveness of cleaning and hand washing in reducing colonisation.

A convenience sample of healthcare workers from various areas of the hospital was obtained over a period of 6 months. The diaphragm of each participant's stethoscope was directly impressed on to mannitol salt agar, before and after being cleaned with a 70% isopropyl alcohol wipe. The dominant hand of each participant was also tested before and after washing with triclosan (1%) antimicrobial handwash and water. *S. aureus* was identified by standard laboratory methods.

There were 134 participants: 69 doctors, 50 nurses, 10 medical and nursing students and five physiotherapists. Most doctors and physiotherapists used their own stethoscopes, whereas most nurses and students used ward stethoscopes.

S. aureus was isolated from five stethoscopes before cleaning (4%), but from none after cleaning. The organism was also isolated from the hands of 11 people before hand washing (8%) and of one after hand washing (0.7%). Two people had *S. aureus* isolated from both sites. There was no statistically significant difference between the prevalence of *S. aureus* on hands and stethoscopes ($P=0.15$, McNemar's test).

Hand washing is the best recognised means of preventing cross-contamination in hospitals. However, the simple intervention of cleaning stethoscopes with an alcohol wipe was highly effective, and we believe that this practice should be more widely promoted.

1. Pittet D, Hugonnet S, Harbarth S, et al. Effectiveness of a hospital wide program aimed at improving compliance with hand hygiene. *Lancet* 2000; 356: 1307-1312.
2. Smith MA, Mathewson JJ, Ulert A, et al. Contaminated stethoscopes revisited. *Arch Intern Med* 1996; 156: 82-84.
3. Bernard L, Kereveur A, Durand D, et al. Bacterial contamination of hospital physician's stethoscopes. *Infect Control Hosp Epidemiol* 1999; 20: 626-628.
4. Marinella MA, Pierson C, Chenoweth C. The stethoscope — a potential source of nosocomial infection? *Arch Intern Med* 1997; 157: 786-790.
5. Jones JS, Hoerle D, Riekse R. Stethoscopes: a potential vector of infection? *Ann Emerg Med* 1995; 26: 296-299. □

Prescriptions for antipsychotics in general practice

Christopher M Harrison,* Helena C Britt†

*Research Assistant, †Director, General Practice Statistics and Classification Unit (a collaborating unit of the Australian Institute of Health and Welfare), University of Sydney, PO Box 533, Wentworthville, NSW 2145. chrish@med.usyd.edu.au

TO THE EDITOR: At the Australasian Schizophrenia Conference in Sydney in October 2002, Professor Patrick McGorry of the Orygen Research Centre, University of Melbourne, presented draft guidelines on the management of schizophrenia and early psychoses.¹ One of the recommendations was that atypical antipsychotic drugs should be used as the first-line pharmacological treatment in preference to typical antipsychotics and depot antipsychotics. With a shift in management of schizophrenia to community-based care, the number of patients with schizophrenia managed by general practitioners has increased over the past decade (from 36 per 10 000 encounters in 1990–91 to 45 per 10 000 in 2000–02).² With the pending introduction of the guidelines, a baseline measure of GP prescribing rates of antipsychotics, both typical and atypical, will allow future measurement of the impact of the guidelines.

We analysed the 1998–2002 data from the Bettering the Evaluation and Care of Health (BEACH) program, a continuous national cross-sectional survey of general practice.³ About 1000 GPs participate in this program every year, each providing details (on structured forms) about 100 consecutive patient encounters. Data collected include GP and patient characteristics, problems managed and treatment provided. We examined 401 300 encounters from 4013 GPs, with 431 537 medications recorded. Prescription rates were calculated and regression analyses performed using SAS software⁴ to adjust for the cluster effect of the study design.

There were 1988 schizophrenia or psychosis problems managed in the four years of data collection (a rate of 49.5 per 10 000 encounters); 1883

medications were prescribed (94.7 per 100 contacts), of which 926 (49.2%) were typical antipsychotic drugs and 484 (25.7%) were atypical antipsychotic drugs.

In 1998–99, the prescription rate of atypical antipsychotics was 15.7 per 100 contacts with patients with schizophrenia or psychosis (95% CI, 11.8–19.7). This rate increased to 31.1 per 100 contacts (95% CI, 26.3–36.0) in 2001–02. In the same period, the prescription rate for typical antipsychotics fell from 51.3 per 100 contacts (95% CI, 45.6–56.9) in 1998–99 to 40.6 per 100 contacts (95% CI, 35.4–45.8) in 2001–02. Linear regression showed that the prescription rate of atypical antipsychotics had increased by an average of 5.1 per 100 contacts per year over the four years ($P < 0.0001$), while the prescription rate of typical antipsychotics had decreased by an average of 3.8 per 100 per year ($P < 0.005$). Over the four-year period, there was no significant increase in the rate of overall prescriptions for people with schizophrenia (92.0 prescriptions per 100 contacts [95% CI, 83.4–100.7] in 1998–99 v 96.3 [95% CI, 89.4–103.3] in 2001–02).

Between 1998 and 2002, the relative prescribing rate of atypical antipsychotics for schizophrenia and other psychoses in general practice nearly doubled. These results show that, even before the introduction of the guidelines, there has been a shift towards prescribing atypical antipsychotics in preference to typical antipsychotics. This change may reflect a change in specialist behaviour, as specialists have a direct effect on GP prescribing.⁵ The BEACH study will be able to assess the effect of the guidelines on the prescription rate of atypical antipsychotics by GPs.

Acknowledgements: Thanks to the Commonwealth Department of Health and Ageing, AstraZeneca Pty Ltd (Australia), Aventis Pharma Pty Ltd, Janssen-Cilag Pty Ltd and Roche Products Pty Ltd for funding; to the GP participants; and Stephanie Knox, for assistance with statistical analysis.

- McGorry PD, Killackey EJ, Lambert T, and Clinical Practice Guidelines for Treatment of Schizophrenia Working Party. The Australian clinical practice guidelines for the treatment of schizophrenia [Draft]. In: Proceedings of the 7th Biennial Australasian Schizophrenia Conference; 2002 Oct 24–26; Sydney, NSW.
- Harrison C, Britt H, Knox S, Charles J. The rates and methods of management of schizophrenia in Australian general practice. In: Proceedings of the 7th Biennial Australasian Schizophrenia Conference; 2002 Oct 24–26; Sydney, NSW.
- Britt H, Sayer GP, Miller GC, et al. Bettering the Evaluation and Care of Health: a study of general practice activity. Six month interim report. Canberra: Australian Institute of

- Health and Welfare and University of Sydney, 1999. (General Practice Series No. 1; AIHW Catalogue No. GEP 1.)
- SAS proprietary software, version 8.2. Cary, NC: SAS Institute Inc., 1999.
 - Robertson J, Fryer JL, O'Connell DL, et al. The impact of specialists on prescribing by general practitioners. *Med J Aust* 2001; 175: 407–411. □

Hepatitis risk and vaccination among Australian travellers overseas

Nicholas A Zwar,* on behalf of the Travel Health Advisory Group

* Director and Professor of General Practice, General Practice Unit, Fairfield Hospital, PO Box 5, Fairfield, NSW 1860. n.zwar@unsw.edu.au

TO THE EDITOR: Figures from the Australian Bureau of Statistics show that Australians make about 3.3 million overseas departures each year.¹ Few data are published on the extent to which Australian travellers seek pre-travel health advice, what vaccinations they receive, and what risks they are exposed to during travel.

A series of surveys of travellers examining these questions has been conducted under the auspices of the Travel Health Advisory Group, a coalition of Australian travel and medical organisations. Surveys were conducted in 1996, 1997, 2000, 2001 and 2002. On each occasion, a market research company telephoned people from mainland capitals using numbers randomly selected from the telephone directory. This process continued until 500 people aged 18 or over who had travelled overseas in the previous two years had been interviewed. In the 2002 survey, about 10 000 calls were made to complete the interviews. The questions on vaccinations focused on hepatitis A and B, two of the most common vaccine-preventable diseases associated with travel.²

Results from the 2002 survey are shown in the Box. A minority of people (31%) reported seeing a doctor or travel clinic for pre-travel health advice. Of those who saw a doctor or travel clinic, 31% did so two weeks or less before departure.

Over the series of surveys, there has been an increase in travel to destinations with high- or intermediate-risk for hepatitis A infection, from 40% of travellers in 1996 to 58% in 2002. Despite this increase, only a minority of travellers could recall ever being vaccinated for

this illness. Travellers were informed about how they might be exposed to hepatitis A and B and asked if they believed that they could have been at risk during their most recent overseas trip. Substantial numbers recalled a risk (34% and 16% for hepatitis A and B, respectively) and some of these could not recall being vaccinated (18% and 7%, respectively) (Box).

Results of 2002 survey of Australian travellers overseas

Variable	No. of travellers (n=500)
Age (years)	
18–29	156 (31%)
30–49	188 (38%)
≥ 50	153 (31%)
Not stated	3 (0.6%)
Male sex	205 (41%)
Hepatitis A risk in country visited*	
High	226 (45%)
Intermediate	62 (12%)
Low	212 (42%)
Sought pre-travel health advice from doctor or travel clinic	
Doctor	135 (27%)
Travel clinic	20 (4%)
No professional advice	345 (69%)
Believed could have been at risk of hepatitis on most recent trip	
Hepatitis A	168 (34%)
Hepatitis B	79 (16%)
Vaccinated against hepatitis	
Hepatitis A	195 (39%)
Hepatitis B	197 (39%)
Believed at risk of hepatitis on most recent trip and not vaccinated or unsure	
Hepatitis A	91 (18%)
Hepatitis B	36 (7%)
Hepatitis A risk in country visited* among those not vaccinated for hepatitis A or unsure	
High	123 (25%)
Intermediate	40 (8%)
Low	142 (28%)

* As defined by the United States Centers for Disease Control and Prevention, 2000.³ Destinations for the cohort of 500 were Asia (45%), northern Europe (28%), southern Europe (14%), North America (15%), Oceania (14%), eastern Europe (3%), Africa (3%), Middle East (2%), South America (1%) and Central America (1%), with some having more than one destination.

These surveys have methodological limitations, including lack of information on the consent rate and potential recall bias. However, the results suggest that substantial numbers of travellers do not seek pre-travel health advice and are at risk of vaccine-preventable diseases during travel. Not only does this have implications for individual travellers, it also creates public health risks, as travellers can introduce hepatitis A and B into their home communities. These results suggest more public education is needed about the importance of pre-travel health advice and appropriate vaccination.

Travel Health Advisory Group (THAG): Member organisations are the Australian Federation of Travel Agents (Ms Marie Allom), MASTA — Minding Your Health Abroad (Dr Bernard Hudson and Mr Chris Birch), Royal Australian College of General Practitioners (Professor Nicholas Zwar), Royal Melbourne Hospital/Glaxo-SmithKline (Dr Tilman Ruf), The Travel Doctor (TMVC) (Dr Bob Kass), and Qantas Airways (Ms Bronwyn Claxton and Mr Adam Huntley).

Acknowledgement: The support of GlaxoSmithKline Australia Pty Ltd in conducting the surveys and assisting with data analysis, and in the activities of the Travel Health Advisory Group is gratefully acknowledged. GlaxoSmithKline had no right of veto over publication.

1. Australian Bureau of Statistics. Overseas arrivals and departures, 1999–2000. Canberra: ABS, 2002. (Catalogue no. 3401.0.)
2. International travel and health. Geneva: World Health Organization, 2002.
3. United States Centers for Disease Control and Prevention. Health information for international travel, 2001–2002. Hepatitis A. Available at: www.cdc.gov/spravel/diseases/hav.htm (accessed Dec 2002). □

The decline in bulk-billing and increase in out-of-pocket costs for general practice consultations in rural areas of Australia, 1995–2001

Warwick H Ruse

Physician, 4/19 Mills Street, Cannington, WA 6010.
harusepx@bigpond.com

TO THE EDITOR: I would like to comment on a recent article by Young and Dobson on the decline of bulk-billing and the increase in out-of-pocket expenses.¹

It is true, as the authors state, that “Australia has no legislation restricting how much a general practitioner can charge for a consultation”. It is a shame that they did not take equal time to point out that there is no binding requirement on governments to ensure that Medicare rebates remain within striking distance of the real cost of service provision.

Policy change is required — with as much political and moral urgency as Young and Dobson advocate for patient access reform — to enable doctors to provide affordable healthcare under a fee-for-service system without being penalised for accepting a substantial number of elderly or socially disadvantaged patients. Primary healthcare policy needs to be adjusted to maintain rebate justice for low-income patients by linking patients’ rebates to their doctors’ real-life market costs (or even to relative value studies), not budget “bottom lines”.

Is the patient to be out of pocket, or the doctor? Surely, both positions are equally unfair, and equally unlikely to bring about an equitable system.

1. Young AF, Dobson AJ. The decline in bulk-billing and increase in out-of-pocket costs for general practice consultations in rural areas of Australia, 1995–2001. *Med J Aust* 2003; 178: 122–126. □

Chris A Harrison

General Practitioner; and Chairperson, General Practice Divisions Northern Territory, GPO Box 2589, Darwin, NT 0801.
charrison@tedgp.asn.au

TO THE EDITOR: Young and Dobson¹ have confirmed what has been long suspected by many rural doctors and patients — that women (and patients in general) in rural areas are paying higher out-of-pocket costs for general practice consultations than those in urban areas.

I wonder whether the authors have considered analysing the data by State and Territory, as the structure of a State healthcare system often has a significant impact on healthcare costs to individuals. I am also interested to know whether *total* costs of healthcare (including on-costs, referrals, specialist fees, hospital and investigative care) were analysed. There is a long held view that rural doctors have a more holistic approach to patient care than their urban colleagues, who are more inclined to recommend unnecessary investigations and specialist referrals. It would be fascinating to know whether urban women would actually be more “out-of-pocket” than rural women if total contact with the healthcare system (not just general practice consultations) was taken into account.

1. Young AF, Dobson AJ. The decline in bulk-billing and increase in out-of-pocket costs for general practice consul-

tations in rural areas of Australia, 1995–2001. *Med J Aust* 2003; 178: 122–126. □

Peter C Arnold

General Practitioner (retired), PO Box 280, Edgecliff, NSW 2027.
parnold@ozemail.com.au

TO THE EDITOR: Do the data in Young and Dobson’s study of general practice consultation fees¹ support their conclusion that women in rural and remote areas lack access to affordable healthcare services?

The declining prevalence of bulk-billing by general practitioners suggests that healthcare may be becoming increasingly unaffordable for people on lower incomes. But affordability is not only income-related — it depends also on choices regarding discretionary expenditure. Considering median levels of disposable weekly income, together with the prices of basic daily commodities such as milk or bread (not to mention a \$10 pack of cigarettes!), how “unaffordable” is an occasional \$5–\$10 out-of-pocket fee for a GP consultation?

As Young and Dobson concede, a further complicating factor in their study was that “the consenters ... tended to have higher socioeconomic status and so may be less likely to be bulk-billed”.

It would have been helpful if the authors had defined affordability of GP care in relation to family income (perhaps analogous to advice that rental or mortgage repayments should not exceed a third of household disposable income) and identified just how much their frequent attenders’ GP costs exceeded a specified limit of affordability.

Services free at point of delivery are overused, both by patients and doctors, as evidenced by the Commonwealth’s implementation of the Professional Services Review Scheme and the States’ legislating to curb the costs of workers compensation and third-party motor vehicle insurance claims. There is probably an optimal price range that would facilitate affordable access without penalising the less affluent or encouraging “inappropriate practice”.

Closer attention to the affordability of GP services for individual households would help target resources to people who truly need the services but cannot afford them. This may be a better alter-

native to the authors' suggestion of simply making policy changes (taxpayer-funded?) to lower the price of GP services for all women in rural and remote Australia.

1. Young AF, Dobson AJ. The decline in bulk-billing and increase in out-of-pocket costs for general practice consultations in rural areas of Australia, 1995–2001. *Med J Aust* 2003; 178: 122–126. □

Anne F Young,* Annette J Dobson†

*Statistician, Research Centre for Gender and Health, University of Newcastle, Callaghan, NSW; †Professor of Biostatistics, School of Population Health, Faculty of Health Sciences, University of Queensland, Herston, QLD 4006.

a.dobson@sph.uq.edu.au

IN REPLY: We thank the authors of these letters for raising many of the complex issues that underlie the current geographical inequities in costs of general practice consultations.

Ruse is concerned that we did not point out the inadequacy of the current Medicare rebates to practitioners. An appraisal of the adequacy of Medicare Benefits Schedule fees was beyond the scope of our study. We presented data on the out-of-pocket costs of general practice consultations, according to demographic and health-related characteristics of consumers, for consideration by all interested parties — practitioners and patients.

As suggested by Harrison, we could also look at differences in bulk-billing and costs by State and Territory. However, as Medicare rebates are a Commonwealth issue, looking at national data seemed a sensible first step. We cannot examine total costs of health-care, as the Medicare data do not include all costs related to care.

Arnold argues that “affordability” should be better defined by us and questions, “how unaffordable is an occasional \$5–\$10 out-of-pocket fee for a GP consultation?”. We have three responses. Firstly, many medical practices require an “up-front” payment. As written by one older respondent living in a rural area, “Small country town medical clinics do not give bulk-billing to aged pensioners and insist on cash payment on the day of the visit . . . many pensioners would not seek medical help when needed if at the time no cash was available”. Our second response is that, regardless of how “affordability” is defined, the issue is one of equity. Is it reasonable that a major factor identified

in our study as influencing access to bulk-billing is whether you consult a practitioner in an urban area or a rural area? Finally, “affordability” can only be assessed in relation to income and other expenditure and commitments. In our surveys we ask women how satisfied they are with the costs of GP care and, while the responses are subjective, they are likely to take into account these contextual issues. These data have not yet been fully analysed. □

“Self-experimentation” in vulnerable populations

Allen C Cheng

Infectious Diseases Physician, Infectious Diseases Unit, Menzies School of Health Research, PO Box 41096, Casuarina, NT 0811. allenc@menzies.edu.au

TO THE EDITOR: I note with interest the case study of experimental *Ancylostoma caninum* infection in a 22-year-old student.¹ In his accompanying editorial, Van Der Weyden highlights the courage of these researchers, as well as some of the risks and discomforts associated with their participation,² including in two studies in which he was a co-author.

However, it is also worth highlighting some of the ethical issues associated with such experimentation. Larry Altman, who provided many of the quoted examples of self-experimentation, also reflects on Walter Reed’s experiments with yellow fever vectors in Cuba. Although later credited with the use of written consent forms, on an earlier occasion Altman alleges that Reed withdrew at the last moment from inoculation experiments in which one of his colleagues died.³

Although not mentioned in the published work, the *A. caninum* experiment was initiated and undertaken by Landmann under the supervision of Procriv, who has himself self-experimented with both *A. caninum* and *Necator americanus* (human hookworm) in previous work (Juergen Landmann, Student; Paul Procriv, Senior Lecturer, Department of Microbiology and Parasitology, University of Queensland, personal communication). In this case, the study was wholly initiated by the student so consent was not an issue, but other such studies raise the potential problem of

consent in situations of an unequal power relationship.

Students under supervision constitute a “vulnerable” group in that consent may be given under a form of duress.⁴ Just as special protection is needed for populations for whom research is combined with care, protection is required for students who may feel obliged to participate in such research.

There have been recent calls for a fuller discussion of ethical issues in published experimental studies,⁵ where ethical justification should be accorded the same weight as statistical considerations. The unusual study by Landmann and Procriv highlights the need for such discussion in potentially controversial research protocols.

1. Landmann JK, Procriv P. Experimental human infection with the dog hookworm, *Ancylostoma caninum*. *Med J Aust* 2003; 178: 69–71.
2. Van Der Weyden MB. Researchers as guinea pigs [editorial]. *Med J Aust* 2003; 178: 52–53.
3. Altman LK. Who goes first? The story of self-experimentation in medicine. Chapter 6: The myth of Walter Reed. New York: Random House, 1987.
4. World Medical Association Declaration of Helsinki. Ethical principles for medical research involving human subjects. Initiated 1964. Available at: <http://www.wma.net/e/policy/17c.pdf> (accessed Feb 2003).
5. Miller FG, Rosenstein DL. Reporting of ethical issues in publications of medical research. *Lancet* 2002; 360: 1326–1328. □

The New South Wales Medical Board policy on treating self and family

G Douglas Tracy

Emeritus Professor of Surgery, University of New South Wales, St Vincent’s Clinic, 438 Victoria Street, Darlinghurst, NSW 2010. gdotracy@ihug.com.au

TO THE EDITOR: The most recent newsletter of the New South Wales Medical Board¹ opens with a plea by the president for better understanding of the Board’s initiatives, inspired by the “public interest”.

We hope that the board recognises the gulf between legitimate public interest and unrealistic, illegitimate public expectation.

The newsletter goes on to justify the Board’s policy against doctors self-prescribing, with six examples (hardly significant from a register of 25 000).

The first, Dr A, aged 70 (the only one whose age was given) was referred to the Board by colleagues for mental impairment, and was not self-prescrib-

ing. He was prescribed warfarin by his cardiologist, but also took aspirin. The other five were all involved with drugs of addiction, earning whatever sanctions the Board applied.

The newsletter then states that these were "ordinary doctors providing ordinary services in the community" (p. 3).¹ They were certainly not, and it is this patronising assessment of the behaviour of ordinary doctors that is objectionable.

We are next told that "these dramatic examples represent the tip of an alarming iceberg" (p. 3).¹ The Board has enough to do without plumbing the depths for imagined "icebergs", and should reconsider their policy on the alleged dangers of self-prescribing, a policy both unwarranted and unwanted.

The mocking adage that "doctors who treat themselves have a fool for a physician" is not made correct by repetitive quotation. There are not many fools in our profession, and sanctions applied to them should not affect the Board's assessment of the whole profession.

Although not mentioned in this newsletter, similar motives are apparent in the Board's disapproval of self-referral, where we are not credited with sufficient wit to discover for ourselves appropriate specialists for clinical referral.

All medical boards are currently seized with similar agenda. The Victorian Medical Board ponders the "problem" of retired doctors, with the comment in their newsletter on doctors affected by "increasing age and commensurate reduction in cognitive ability", another gratuitous observation without supporting evidence. They could as correctly, and more kindly, have referred to the accretion of clinical wisdom commensurate with age, but respect for seniors seems to have declining value in current professional ethics.

1. *New South Wales Medical Board Newsletter*. 2002; October. Available at: <http://www.nswmb.org.au> (accessed Apr 2003).

Brian C McCaughan

President, New South Wales Medical Board,
PO Box 104, Gladesville, NSW 1675.
MAL@doh.health.nsw.gov.au

IN REPLY: Tracy's letter seems to focus on age. The Board's policy about treating family members is not about age, but about the wisdom or otherwise of

this practice for medical practitioners at any stage of their career. The policy is not mandatory, but reflects what the Board considers to be prudent practice. The policy does not prohibit writing referrals or repeat prescriptions, but emphasises the importance of having an independent treating practitioner responsible for initiation of treatment and ongoing management.

The New South Wales Medical Board is not alone in having such a policy, with similar views being expressed by UK's General Medical Council, the Medical Council of New Zealand, and Canadian, American and other Australian medical boards. The Australian Medical Association position statement on the "Health of medical practitioners" emphasises the importance of medical practitioners and their families having their own general practitioners.

The case studies were published following a request from members of the profession for the Board to provide examples of problems arising through treating themselves or family members. Sadly, there are many more instances than the five referred to in the article.

The doctors were certainly not ordinary once their attempts to treat family members went astray, but the point is that they had been ordinary doctors who got into difficulties because they crossed the professional-personal boundary. □

MJA Advertisers' Index

Corinth Healthcare

Medical Recruitment p420

Bayer Australia

Levitra p418

Johnson & Johnson

Neutrogena p466

Schering Pty Limited

Yasmin Inside front cover

Mirena Inside back cover

Postinor-2 Outside back cover

The Medical Journal of Australia

Editor

Martin Van Der Weyden, MD, FRACP, FRCPA

Deputy Editors

Bronwyn Gaut, MBBS, DCH, DA

Ruth Armstrong, BMed

Mabel Chew, MBBS(Hons), FRACGP, FACHPM

Ann Gregory, MBBS, GradCertPopHealth

Manager, Communications Development

Craig Bingham, BA(Hons), DipEd

Senior Assistant Editor

Helen Randall, BSc, DipOT

Assistant Editors

Elsina Meyer, BSc

Kerrie Lawson, BSc(Hons), PhD, MASM

Tim Badgery-Parker, BSc(Hons)

Josephine Wall, BA, BAppSci, GradDipLib

Proof Readers

Raymond Carroll, Christine Binskin, BSc

Editorial Administrator

Kerrie Harding

Editorial Assistant

Christine Tsim

Production Manager

Glenn Carter

Editorial Production Assistant

Melissa Sherman

Librarian, Book Review Editor

Joanne Elliot, BA, GradDipLib

Consultant Biostatistician

Val Gebski, BA, MStat

Content Review Committee: Leon Bach, PhD, FRACP; Adrian Bauman, PhD, FAFPHM; Flavia Cicuttini, PhD, FRACP; Marie-Louise Dick, MPH, FRACGP; Mark Harris, MD, FRACGP; David Isaacs, MD, FRACP; Paul Johnson, PhD, FRACP; Jenepher Martin, MEd, FRACS; Adrian Mindel, MD, FRACP; Michael Solomon, MSc, FRACS; Campbell Thompson, MD, FRACP; Tim Usherwood, MD, FRACGP; Owen Williamson, FRACS, GradDipClinEpi; John Wilson, PhD, FRACP; Jeffrey Zajac, PhD, FRACP

Australasian Medical Publishing Co Pty Ltd

Advertising Manager: Peter Butterfield

Media Coordinator: Stephanie Elliott

The Medical Journal of Australia (MJA) is published on the 1st and 3rd Monday of each month by the Australasian Medical Publishing Company Proprietary Limited, Level 2, 26-32 Pymont Bridge Rd, Pymont, NSW 2009. ABN 20 000 005 854. Telephone: (02) 9562 6666. Fax: (02) 9562 6699. E-mail: ampco@ampco.com.au. The Journal is printed by Offset Alpine Printing Ltd, 42 Boorea St, Lidcombe, NSW 2141.

MJA on the Internet: <http://www.mja.com.au/>

None of the Australasian Medical Publishing Company Proprietary Limited, ABN 20 000 005 854, the Australian Medical Association Limited, or any of its servants and agents will have any liability in any way arising from information or advice that is contained in *The Medical Journal of Australia (MJA)*. The statements or opinions that are expressed in the Journal reflect the views of the authors and do not represent the official policy of the Australian Medical Association unless this is so stated. Although all accepted advertising material is expected to conform to ethical and legal standards, such acceptance does not imply endorsement by the Journal. All literary matter in the Journal is covered by copyright, and must not be reproduced, stored in a retrieval system, or transmitted in any form by electronic or mechanical means, photocopying, or recording, without written permission.

Published in 2 volumes per year.

Annual Subscription Rates for 2003 (Payable in Advance) to:

AMPCo, Locked Bag 3030, Strawberry Hills, NSW 2012

Individual Subscriptions (includes 10% GST)

Australia—\$A291.50, Medical students (Australia only)—\$A60.00

Overseas Economy Air—\$A370.00, Airmail—\$A505.00

NZ & PNG Economy Air—\$A340.00

Indexes are published every 6 months and are available on request as part of the current subscription.

Single or back issues contact: AMPCo (02) 9562 6666.

Advice to Authors—

<http://www.mja.com.au/public/information/instruct.html>

27,787 circulation as at
30 September, 2002

ISSN 0025-729X