

study, assuming three different magnitudes of ICCs, ranging from relatively modest (0.015) through more substantive (0.1) (see Box). Given the large denominator of the ASAP study, our methodological concern may be only minor in terms of the width of the CIs reported, but the reader is unable to judge whether or not this is the case, as no ICCs were reported. As sample-size calculations for future interventional studies would be informed by publication of ICCs,⁴ we encourage such reporting in future.

Third, we believe the authors' quantitative findings would have been most useful if they had been age-adjusted in line with Australian community norms.

1. Sturm JW, Davis M, O'Sullivan JG, et al. The Avoid Stroke as Soon as Possible (ASAP) general practice stroke audit. *Med J Aust* 2002; 176: 312-316.
2. Campbell MK, Mollison J, Steen N, et al. Analysis of cluster randomized trials in primary care: a practical approach. *Fam Pract* 2000; 17: 192-196.
3. Donner A, Klar N. Design and analysis of cluster randomisation trials in health research. London: Arnold, 2000.
4. Campbell M, Grimshaw J, Steen N. Sample size calculations for cluster randomised trials. *J Health Serv Res Policy* 2000; 5: 12-16. □

Jonathan W Sturm,^{*} Stephen M Davis,[†] John G O'Sullivan,[‡] Miriam E Vedadhagi,[§] Geoffrey A Donnan[¶]

*Research Fellow; †Director, National Stroke Research Institute and Department of Neurology, Austin and Repatriation Medical Centre, Heidelberg West, VIC; ‡Director of Neurology, Department of Medicine, Melbourne University, and Department of Neurology, Royal Melbourne Hospital, Melbourne, VIC; §Associate, Blackburn Clinic, Blackburn, VIC; ¶Project Associate, Servier Laboratories, Hawthorn, VIC. jsturm@austin.unimelb.edu.au

IN REPLY: We thank Middleton et al for their interest in our article. As 96% of questionnaires in our ASAP study¹ were completed by September 2000, their study (as yet unpublished) and ours were not concurrent. Statistically, based on the information given by Middleton et al, we would expect 5.5 GPs (296 x 333/18066) to

be involved in both studies. Chance, or because direct involvement in the ASAP study had finished months earlier, may explain why none of the doctors in the survey by Middleton et al stated that they were involved in a stroke audit.

In answer to the claim that "no GP data by State and Territory" were provided, we did in fact indicate in our article how many GPs from each State and Territory participated.

Intracluster correlations (ICCs)² for each risk factor in our study are shown in the Box. ICCs have a greater effect on sample size than on CIs, because CI width is inversely proportional to the square root of the sample size. The large sample size of ASAP means that the study has acceptable precision, even after allowing for ICCs.

Overall estimates for risk factors were provided for the population of people consulting GPs, which is the relevant population. We would not necessarily expect the same distribution of risk factors in people not attending GPs. Age- and sex-specific risk-factor prevalences, shown in Box 3 of our article,¹ can be used to calculate age- and sex-standardised rates for any desired population.

We are confident that the information obtained in our study is likely to be representative of most Australian general practice environments.

1. Sturm JW, Davis M, O'Sullivan JG, et al. The Avoid Stroke as Soon as Possible (ASAP) general practice stroke audit. *Med J Aust* 2002; 176: 312-316.
2. Ridout MS, Demetrio CBG, Firth D. Estimating intraclass correlation for binary data. *Biometrics* 1999; 55: 137-148. □

Itching bites may limit Ross River virus infection

Alan E Dugdale

Honorary Principal Research Fellow, Department of Paediatrics and Child Health, University of Queensland Medical School, Herston, QLD 4006 a.dugdale@mailbox.uq.edu.au

TO THE EDITOR: Reactions to insect bites are unpleasant and can be dangerous.¹ Kumar² commented that people who react to mosquito bites with local itching and inflammation appeared less likely to develop malaria than those with no reaction. In a later personal communication, he gave me unpublished data showing an inverse linear relationship between the severity of the reaction to mosquito bites and the incidence of clinical malaria.

Ross River virus infection is endemic in all Australian states. A specific serological test is available to confirm suspicious clinical illnesses. Some people have serolog-

Reactions to mosquito bites among people with and without evidence of Ross River virus (RRV) disease

	No reaction	Moderate to severe reaction
Past RRV disease	7	0
No past RRV disease	0	18

ical signs of past infection without any history of clinical disease. With Kumar's findings in mind, I asked people with a past history of clinical Ross River virus infection, proven by serology, whether they reacted to mosquito bites. All seven asked said that they had had no reaction. Their main complaint was the noise made by predatory mosquitoes. I then asked patients who were in the same age range and general social class, who lived in the same area and were attending clinics with other diseases, whether they had had any clinical illness diagnosed as Ross River virus infection. Of the 18 asked, none had had the clinical disease or serological tests for the disease. All 18 had moderate to severe reactions and itching with mosquito bites. The Box shows these results

Fisher's exact test gives the probability of this finding as 0.0000003. These observations have not explored all aspects of the problem, so this level of probability may be optimistic, but, even so, it makes pointless any further informal collection of data. These findings justify a formal epidemiological study, including antibody titres. It should include those who react to mosquito bites and those who do not, and those with and without a past history of the clinical illness.

This informal study suggests that reactions to mosquito bites protect against Ross River virus infection, and parallels Kumar's findings in malaria. There may be behavioural and biological explanations for this finding. People who itch with mosquito bites may take greater precautions to avoid them. Conversely, people who do not itch may spend more time outdoors and be more likely to be bitten. Biologically, reactions to bites may be examples of a generalised protective effect of local reactions against insect-borne diseases. The inflammatory reaction with itching may be a factor in defence against infection³ by limiting or destroying injected parasites and viruses locally or through a more vigorous generalised response that prevents disease or limits infection to a subclinical level. Investigation of local inflammatory response might provide clues to effective prevention and treatment.

Intracluster correlations (ICCs) for stroke risk factors in the ASAP stroke audit^{1*}

Risk factor	All	Men	Women
Current smoker	0.07	0.09	0.08
Hypercholesterolaemia	0.06	0.06	0.07
Hypertension	0.06	0.05	0.07
Diabetes	0.04	0.05	0.07
Past TIA/stroke	0.018	0.024	0.013
Atrial fibrillation	0.016	0.017	0.023

TIA = transient ischaemic attack. *Calculated using the analysis of variance (ANOVA) method.²

- O'Hehir RE, Douglass JA. Stinging insect allergy. *Med J Aust* 1999; 171: 649-650.
- Kumar A. Itching and immunity [letter]. *Lancet* 1996; 348: 1383.
- Fang D, Elly C, Gao B, et al. Dysregulation of T lymphocyte function in itch mice: a role for Itch in TH2 differentiation. *Nat Immunol* 2002; 3: 281-287. □

You oughta be congratulated?

Alex A Padiglione,* Catherine E Marshall,†
Tony M Korman‡

*Infectious Diseases Physician, † Registrar, ‡Director, Department of Infectious Diseases, Monash Medical Centre, Clayton, VIC 3168.
alex.padiglione@med.monash.edu.au

TO THE EDITOR: We write to express our concern at the publication of the recent supplement "Essential role of fats throughout the lifecycle", adorned by the sponsor's logo.¹ It was an interesting counterpoint to an accompanying article in the main journal regarding the need for industry-academia collaborations to "strike a balance".² While the issue of relationships between industry and doctors is complex, and few of us are truly independent, the publication of such a branded document is disquieting. Directed sponsorship, beyond mere advertising, undermines the credibility of such supplements and the Journal itself, regardless of the authors' expertise, objectivity and the importance of the topic. Unfortunately, we are left with the taste that this is a spread designed to butter us up.

- Gibson RA, editor. Essential role of fats throughout the lifecycle. *Med J Aust* 2002; 176 (Suppl 3 June): S105-S124.
- Moses H, Perumpanani A, Nicholson J. Collaborating with industry: choices for Australian medicine and universities. *Med J Aust* 2002; 176: 543-546. □

Martin B Van Der Weyden

Editor, *The Medical Journal of Australia*, Locked Bag 3030, Strawberry Hills, NSW 2012.
editorial@ampco.com.au

IN REPLY: "Oh what a feeling" to receive a congratulatory letter! But the euphoria was short lived, as, on closer inspection, congratulations turned to castigation. The offending event was the Journal's publication of an industry-supported supplement,¹ and its practice of branding supplements with the logos of their sponsoring bodies.

Although sponsorship by government agencies or non-profit health organisations rarely provokes comment, industry sponsorship is another matter. As industry support for research and other health-related activities will inevitably increase in the future, we at the Journal are pleased that Padiglione and colleagues have aired their anxiety.

Irrespective of the source of sponsorship, the Journal's policy governing the publica-

tion of supplements follows the recommendations of the International Committee of Medical Journal Editors.² These include that:

- the journal's editor must take full responsibility for policies, practices and content of supplements, must approve the appointment of the editors of supplements, and must retain the authority to reject articles; and
- the source of funding should be clearly stated and prominently located in supplements, preferably on each page.

To these principles the Journal has added its own requirements.³ These include the need for peer review and that editors of and contributors to supplements declare competing interests and compensations. These were clearly identified on the title page of the offending publication.¹

For our readers, the Journal is the bread and its supplements the butter. One can always refuse to taste the butter. But, for those who hanker after a little fat, we aim to ensure, through churning by external peer review and transparent sponsorship of the product, that "butter is better".

- Gibson RA, editor. Essential role of fats throughout the lifecycle. *Med J Aust* 2002; 176 (Suppl 3 June): S105-S124.
- International Committee of Medical Journal Editors. Uniform requirements for manuscripts submitted to biomedical journals and separate statements <http://www.mja.com.au/public/information_uniform.html> (accessed 9 September 2002).
- MJA policy on sponsored supplements <<http://www.mja.com.au/public/information/supplements.html>> (accessed 11 September 2002). □

Correspondents

Please see mja.com.au/public/information/instruc.html for submission details.

MJA

Advertisers' Index

Cotswold Furniture	
Furniture Collection	p392
Johnson & Johnson	
Neutrogena	p394
Janssen-Cilag	
Durogesic	p339
Schering Pty Limited	
Yasmin	Inside front cover
Mirena	Inside back cover
Primolut N	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

Kincaid-Smith Editorial Fellow

Jenny Bergen, MBBS, FRANZCP

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 Reader

Richard Bellamy

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, FRACP; 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 Pyrmont Bridge Rd, Pyrmont, 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 2002 (Payable in Advance) to:

AMPco, Locked Bag 3030, Strawberry Hills, NSW 2012

Individual Subscriptions (includes 10% GST)

Australia—\$A284.90, Medical students (Australia only)—\$A55.00

Overseas Economy Air—\$A396.00, Airmail—\$A539.00

NZ & PNG Economy Air—\$A363.00, Airmail—\$A490.00

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/instruc.html>



27,324 circulation as at
31 March, 2002



ISSN 0025-729X