

Trans fats in Australian fast foods

293 David Cameron-Smith, Andrew J Sinclair

Current teaching about obesity in Australian universities, specialist medical colleges and through continuing medical education

293 Melissa J Hayden, Leon Piterman, John B Dixon, Paul E O'Brien

Guidelines for the management of acute coronary syndromes 2006

294 Andrew J Bezzina

294 Philip Aylward, Constantine N Aroney, Ken Hossack, Andrew M Tonkin

Evidence into practice: the mental health hurdle is high

295 Philip B Mitchell, James A Best, Bronwyn M Gould, Ian G Wilson

295 Andrew J Wilson, David Barton

Interface between residential aged care facilities and a teaching hospital emergency department in Western Australia

296 Keith S Jones

Trans fats in Australian fast foods

David Cameron-Smith and Andrew J Sinclair

TO THE EDITOR: *Trans* fats are produced by partial hydrogenation of liquid vegetable oils to produce oils which are more solid at room temperature and have better physical properties for food processing, such as increased shelf-life. *Trans* fats represent a major dietary cardiovascular disease risk, with as little as 5 g daily increasing the risk of ischaemic heart disease by 25%.¹ A recently published survey of the *trans*-fat content of French fries and chicken nuggets purchased from two international fast food chains in 20 countries emphasises the wide variability of *trans* fats in different countries.² This work highlights the potential health risks imposed by the industrially generated *trans* fats in these food products. Of the sampled French fries and nuggets, 20 of 39 samples from 19 different countries yielded *trans*-fat levels in excess of 5 g for an average serve. Interestingly, the report included no data from Australia.

We have evidence that similar fast foods have substantial quantities of *trans* fats (putting Australia in the mid-range of the league table). The only available published results are those reported by the Australian Consumers Association (ACA) in 2005.³ The ACA tested 55 foods and found 18 had *trans*-fat levels greater than 2% of total fat. The interesting issue is that the ACA data show a variation in *trans*-fat levels of greater than 22-fold (0.8%–22.5% of total fat) in popular fast foods.

Data on *trans*-fat levels should be available on all foods in this country, whether sold in supermarkets or to the food service industry. However, at present, there is no requirement to include *trans*-fat content on nutrient information panels, except when the manufacturer wishes to make a nutritional claim about cholesterol, saturated, unsaturated or *trans*-fatty acids.⁴ Many countries, including the United States, Canada and some European countries, have either placed limits on the permissions for *trans* fat in processed foods, or, more commonly, mandated labelling requirements. The most notable is Denmark, where legislation restricts maximal industrially produced *trans* fats to less than 2%.⁵ Not surprisingly, that country reported markedly lower *trans*-fat contents in fries and nuggets than those sold in Australia.² Despite review of the "Australia New Zealand Food Standards Code", labelling of the *trans*-fat content of food has not been man-

dated,⁴ and consumers and health professionals wishing to reduce their *trans*-fats intake remain unable to make informed choices.

David Cameron-Smith, Associate Professor, Nutritional Physiology
Andrew J Sinclair, Professor of Human Nutrition
School of Exercise and Nutrition Sciences, Deakin University, Melbourne, VIC.
davidcs@deakin.edu.au

- 1 Oomen CM, Ocke MC, Feskens EJ, et al. Association between *trans* fatty acid intake and 10-year risk of coronary heart disease in the Zutphen Elderly Study: a prospective population-based study. *Lancet* 2001; 357: 746-751.
- 2 Stender S, Dyerberg J, Astrup A. High levels of industrially produced *trans* fat in popular fast foods. *N Engl J Med* 2006; 354: 1650-1652.
- 3 Australian Consumers Association. *Trans fat*. *Choice* 2005; April: 12. <http://www.choice.com.au/viewArticle.aspx?id=104658&catId=100289&tid=100008&p=1&title=Trans+fat> (accessed Apr 2006).
- 4 Food Standards Australia New Zealand. Fact sheet. *Trans fatty acids*. 12 April 2005. <http://www.foodstandards.gov.au/mediareleasespublications/factsheets/factsheets2005/transfattyacids12apr2869.cfm> (accessed Apr 2006).
- 5 Stender S, Dyerberg J. The influence of *trans* fatty acids on health. 4th ed. Copenhagen: The Danish Nutrition Council, 2003. http://www.ernaeringsraadet.dk/pdf/Transfedt_UK_ny.PDF (accessed Apr 2006). □

Current teaching about obesity in Australian universities, specialist medical colleges and through continuing medical education

Melissa J Hayden, Leon Piterman, John B Dixon and Paul E O'Brien

TO THE EDITOR: With obesity reaching epidemic proportions in Australia, professional education needs to reflect this increase in prevalence. Research has shown that health professionals' lack of knowledge is a common barrier to providing care for overweight and obese individuals.¹⁻³ We investigated the coverage of obesity education in university medical, dietetic and nursing curricula (partially replicating the earlier study in the Journal by Campbell and Welborn⁴), and also the extent to which obesity was covered in the curricula of selected professional specialist colleges in Australia. Contact hours for obesity were compared against two "control diseases", diabetes and depression.

Surveys were sent to 15 medical schools, and administrators of six dietetic courses and six nursing courses in Australia. The survey asked questions including the total number of contact hours in the course for each topic, and if additional teaching was needed. Most college curricula were publicly available, as were the Continuing Medical Education events and topics.

Nine of the 15 medical schools and three of the six dietetic and nursing courses returned the questionnaire. Because of the nature of the data and the very small sample sizes, no statistical analysis was conducted. In the medicine curriculum, while variation in mean contact hours between obesity, diabetes and depression was small, the range was quite large (Box). There was also wide variation in the contact hours for obesity education in the nursing curriculum. The median contact hours for obesity education were half that

Summary of median, mean, standard deviation and range for contact hours of teaching about obesity, diabetes and depression in undergraduate courses

Course and disease	Number reporting contact hours	Contact hours		
		Median	Mean ± SD	Range
Medicine				
Obesity	8	7	13 ± 11	5–30
Diabetes	8	13	20 ± 20	6–64
Depression	6	13	13 ± 5	4–20
Nursing				
Obesity	3	6	8 ± 10	0–19
Diabetes	3	13	18 ± 8	10–25
Depression	3	13	16 ± 10	8–28
Dietetics				
Obesity	3	15	14 ± 8	6–22
Diabetes	3	20	17 ± 8	8–23

SD = standard deviation. ♦

of both depression and diabetes, and one university reported zero contact hours for obesity education.

With the exception of the Royal Australian College of General Practitioners, the colleges surveyed did not include obesity in the prescribed teaching curriculum. Several professional education topics were available on obesity, but considerably more were available relating to diabetes and depression.

Our findings indicate that most of the universities appear to provide undergraduate students with adequate contact hours for education about obesity. The professional training provided by the individual specialist medical colleges is not as comprehensive, and lacks specific obesity education. Based on these findings, more systematic research is needed to examine the details of training and to develop programs which better equip health professionals to deal with the growing burden of obesity and related diseases. Future research should not be limited to measuring contact hours — the focus should extend to investigating the content of courses and professional development programs, and to examining the barriers to including obesity education.

Melissa J Hayden, Research Assistant
Leon Piterman, Head of Professional Education
John B Dixon, Head of Clinical Studies
Paul E O'Brien, Director
 Centre for Obesity Research and Education,
 Monash University, Melbourne, VIC.
 melissa.hayden@med.monash.edu.au

- 1 Block JP, DeSalvo KB, Fisher WP. Are physicians equipped to address the obesity epidemic? Knowledge and attitudes of internal medicine residents. *Prev Med* 2003; 36: 669-675.
- 2 Harris JE, Hamaday V, Mochan E. Osteopathic family physicians' attitudes, knowledge, and self-reported practices regarding obesity. *J Am Osteopath Assoc* 1999; 99: 358-365.
- 3 Price JH, Desmond SM, Krol RA, et al. Family practice physicians' beliefs, attitudes, and practices regarding obesity. *Am J Prev Med* 1987; 3: 339-345.
- 4 Campbell LV, Welborn TA. Current teaching about obesity in Australian universities. *Med J Aust* 1994; 160: 583-584. □

Guidelines for the management of acute coronary syndromes 2006

Andrew J Bezzina

TO THE EDITOR: The discussion of fibrinolysis in the recently published guidelines for the management of acute coronary syndromes 2006¹ is interesting. The recommendations clearly indicate that second-generation agents should be preferred to streptokinase in all circumstances. The guidelines reference the GUSTO-I trial data² as the primary support for those recommendations. These data are, at best, debatable in terms of showing any benefit of front-loaded tissue plasminogen activator over streptokinase, and then only in limited circumstances (ie, patients aged less than 75 years with anterior infarcts and within 4 hours of the onset of symptoms).^{3,4}

To my knowledge, there have been no head-to-head trials of this size of the other fibrinolytic agents discussed against streptokinase. Thus there is no justification for the blanket superiority that is accredited to these agents, both by implication and explicitly, in the guidelines.

It is a matter of some concern that guidelines from such respected groups should make statements that will be used broadly by clinicians, but that go beyond the evidence base to which they refer.

On the balance of information available there is no compelling case to relegate streptokinase from the front line.

Andrew J Bezzina, Emergency Physician
 Wollongong Hospital, Wollongong, NSW.
 Andrew.Bezzina@sesiahs.health.nsw.gov.au

1. Acute Coronary Syndrome Guidelines Working Group. Guidelines for the management of acute coronary syndromes 2006. *Med J Aust* 2006; 184 (8 Suppl): S1-S32.
- 2 The GUSTO Investigators. An international randomized trial comparing four thrombolytic strategies for acute myocardial infarction. *N Engl J Med* 1993; 329: 673-682.
- 3 Ridker PM, O'Donnell C, Marder VJ, Hennekens CH. Large-scale trials of thrombolytic therapy for acute myocardial infarction: GISSI-2, ISIS-3, and GUSTO-1. *Ann Intern Med* 1993; 119: 530-532.
- 4 Brophy JM, Joseph L. Placing trials in context using Bayesian analysis: GUSTO revisited by Reverend Bayes. *JAMA* 1995; 273: 871-875. □

**Philip Aylward, Constantine N Aroney,
 Ken Hossack and Andrew M Tonkin**

IN REPLY: As Bezzina states, the GUSTO-I trial is the main source of evidence for the superiority of front-loaded alteplase (rt-PA)

over streptokinase, showing a 1% absolute and 15% relative benefit.¹ Subgroup analysis suggested that only certain groups benefited, but this is an inappropriate use of subgroups, and the result should be applied overall. A clear mechanistic reason for the advantage of rt-PA — greater 90-minute full coronary patency — has also been demonstrated.²

Meta-analyses of the percutaneous coronary intervention (PCI) trials in acute myocardial infarction have all shown benefit over fibrinolysis. However, the benefit of PCI is greater compared with streptokinase than with plasminogen activators.³ Although not providing a head-to-head comparison, these data also support the superiority of plasminogen activators over streptokinase.

The second generation plasminogen activator studies have all compared these with the “gold standard” front-loaded rt-PA. These agents have been shown to not be inferior in relation to mortality,^{4,5} and tenecteplase showed a decrease in systemic bleeding.⁵ Administration as a bolus without the adverse reactions commonly seen with streptokinase (such as hypotension) make them much more convenient and safe, particularly in smaller institutions.

In addition, streptokinase is an inappropriate choice in Indigenous patients because many have high levels of anti-streptokinase IgG and streptokinase resistance.⁶

Philip Aylward, Co-Chair, Acute Coronary Syndromes Guidelines Working Group, and Director of Cardiology¹

Constantine N Aroney, Co-Chair, Acute Coronary Syndromes Guidelines Working Group, and Director of Cardiac Services²

Ken Hossack, President³

Andrew M Tonkin, Chief Medical Officer⁴

- 1 Flinders Medical Centre, Adelaide, SA.
- 2 Holy Spirit Northside Hospital, Brisbane, QLD.
- 3 Cardiac Society of Australia and New Zealand, Sydney, NSW.
- 4 National Heart Foundation of Australia, Melbourne, VIC.
 phil.aylward@fmc.sa.gov.au

1. The GUSTO Investigators. An international randomized trial comparing four thrombolytic strategies for acute myocardial infarction. *N Engl J Med* 1993; 329: 673-682.
- 2 Simes RJ, Topol EJ, Holmes DR et al; for the GUSTO-I Investigators. Link between the angiographic substudy and mortality outcomes in a large randomized trial of myocardial reperfusion. Importance of early and complete infarct artery reperfusion. *Circulation* 1995; 91: 1923-1928.
- 3 Grines C, Patel A, Zijlstra F, et al. Primary coronary angioplasty compared with intravenous thrombolytic therapy for acute myocardial infarction: six-month follow up and analysis of individual patient data from randomized trials. *Am Heart J* 2003; 145: 47-57.

- 4 The Global Use of Strategies to Open Occluded Coronary Arteries (GUSTO III) Investigators. A comparison of reteplase with alteplase for acute myocardial infarction. *N Engl J Med* 1997; 337: 1118-1123.
- 5 Assessment of the Safety and Efficacy of a New Thrombolytic Investigators. Single-bolus tenecteplase compared with front-loaded alteplase in acute myocardial infarction: the ASSENT-2 double-blind randomised trial. *Lancet* 1999; 354: 716-722.
- 6 Urdahl KB, Mathews JD, Currie B. Anti-streptokinase antibodies and streptokinase resistance in an Aboriginal population in northern Australia. *Aust N Z J Med* 1996; 26: 49-53. □

Evidence into practice: the mental health hurdle is high

Philip B Mitchell, James A Best, Bronwyn M Gould and Ian G Wilson

TO THE EDITOR: We are delighted at the attention which the editorial by Hickie and Blashki¹ has drawn to our clinical update on the management of bipolar disorder in general practice.² However, we are bemused by a number of the sentiments, criticisms and statements of fact included in that robustly expressed editorial.

We will focus only on a few of the major issues raised. Hickie and Blashki argue that there are too many “worthy” guidelines promulgated to general practitioners by “specialist colleagues” across the range of medical conditions, and that extrapolation from specialist centre studies “may particularly annoy GPs”. On the other hand, they bemoan the fact that “few [guidelines] have targeted general practice”. We are surprised by this insinuation that such issues pertain to our clinical update.

Three of the authors of our article are GPs in either clinical or academic practice, and the document has been formally endorsed by the Royal Australian College of General Practitioners. Our article focuses on the practical issues concerning the role of the GP in the management of patients with bipolar disorder, and deals frankly with the respective contributions of the GP, psychiatrist, and psychologist. It is our experience that GPs are enthusiastic in enhancing their skills in the management of mental illnesses such as bipolar disorder in the primary care setting. Therefore, we have little doubt that updates such as ours will be viewed as helpful aids for GPs, who are often the main “port of call” for people with this condition. We strongly contend the statement that we ignore practice-based issues and thereby risk “an overall negative rating from the target audience”.

Hickie and Blashki state that “the most useful mental health guidelines tackle the tough issues”, such as sources of self-help, self-monitoring, detailed illness descriptions, family education, quality e-health resources, and guidance when patients become a danger to themselves and others. We fail to understand the implication that our update does not address such issues, as these very practical matters are clearly highlighted in detail in our article.

Finally, we are surprised at the negative tone concerning guidance for the management of mental illness in general practice by authors who have argued strongly for the value of evidence-based guidelines in specialist psychiatric practice.³ Although (as we clearly acknowledge) there is currently a limited evidence base for managing such conditions in primary care, there is still a major need for practical guidance for the practitioner in this setting.

Philip B Mitchell, Professor and Head¹
James A Best, General Practitioner²
Bronwyn M Gould, General Practitioner²
Ian G Wilson, Professor of Medical Education³
 1 School of Psychiatry, Prince of Wales Hospital, Sydney, NSW.
 2 Sydney, NSW.
 3 University of Western Sydney, Sydney, NSW.
 phil.mitchell@unsw.edu.au

- 1 Hickie IB, Blashki GA. Evidence into practice: the mental health hurdle is high. *Med J Aust* 2006; 184: 542-543.
- 2 Mitchell PB, Ball JR, Best JA, et al. The management of bipolar disorder in general practice. *Med J Aust* 2006; 184: 566-570.
- 3 Ellis PM, Hickie IB, Smith DA. Evidence-based guidelines: response to Professor Gordon Parker's critique. *Aust N Z J Psychiatry* 2004; 38: 891-895. □

Andrew J Wilson and David Barton

TO THE EDITOR: Hickie and Blashki are to be commended for their view that clinical practice guidelines in mental health should be relevant to a primary care setting.¹ Unfortunately, such guidelines have little effect on clinical outcomes, as most general practitioners have not been taught how to use them to their best advantage.² There is also little known about the best way to implement guidelines in mental health, let alone in primary care mental health settings.³ As a result, more guidelines, even those more attuned to the primary care environment, will be of little benefit to our community.

The Royal Australian and New Zealand College of Psychiatrists (RANZCP) is actively promoting the use of clinical prac-

tice guidelines⁴ as a quality improvement tool that will allow mental health practitioners (including GPs) to assess their practice more carefully and measure and analyse variance. The next step is to fund research into how best to implement mental health guidelines at the coalface.

It is only through practice-based research that the barriers to successful implementation of evidence-based practice can be identified and overcome. Such research could be funded via a National Health and Medical Research Council (NHMRC) or Australian Research Council (ARC) grant program and coordinated by groups such as the RANZCP or the National Mental Health Working Group Safety and Quality Partnership Group. Mental health has already been identified as a grant funding priority by the ARC.⁵ Once this has been achieved, then training and mentoring to help practitioners review their practice as part of a quality improvement framework is required, rather than more guidelines per se.

Providing well researched, up-to-date and accessible information for GPs on “self-help, self-monitoring, [and] detailed illness descriptions”, as suggested by Hickie and Blashki, is commendable, but is not what is required for guidelines to truly improve the safety and quality of mental health care in Australia.

Andrew J Wilson, Deputy Chair
David Barton, Chair

Royal Australian and New Zealand College of Psychiatrists Quality Improvement Committee, Melbourne, VIC.
 andrew.wilson@mckesson.com.au

- 1 Hickie IB, Blashki GA. Evidence into practice: the mental health hurdle is high. *Med J Aust* 2006; 184: 542-543.
- 2 Woolf S. Practice guidelines, a new reality in medicine. II. Methods of developing guidelines. *Arch Intern Med* 1992; 152: 946-952.
- 3 Rush J. Clinical practice guidelines: good news, bad news, or no news? *Arch Gen Psychiatry* 1993; 50: 483-490.
- 4 Barton D, Codyre D, Lovelock H, et al. Implementation of the RANZCP Clinical Practice Guidelines. *Aust N Z J Psychiatry* 2005; 39: A123-A124.
- 5 Australian Research Council. Priority areas for ARC funding. http://www.arc.gov.au/grant_programs/priority_areas.htm (accessed Aug 2006). □

Interface between residential aged care facilities and a teaching hospital emergency department in Western Australia

Keith S Jones

TO THE EDITOR: With Australia's rapidly ageing population and an explosion in the number of retirement villages and nursing homes, Finn and associates are to be congratulated for ventilating the subject of the interface between residential aged care facilities and emergency departments.¹

My experience of emergency department (ED) and aged care facility relations spans over 50 years and I have been involved in both sides of the equation. Firstly as a surgeon, then as director of an ED, and finally, as a resident of a retirement village for over 20 years (including, for my wife, 5 years in the affiliated nursing home), and during that time my wife and I have had at least eight episodes as patients in an ED.

Retirement villages and nursing homes are not equipped or organised to handle medical or surgical emergencies. Problems of "disposal" arise after ED assessment and treatment in a public hospital. The hospital may not have an empty bed. The patient's condition may not be serious enough to require a hospital bed, but the patient may not be well enough to return to his or her retirement village. Privately insured patients may have the option of transferring to a private hospital but usually spend an unnecessarily long time in the ED awaiting such transfer.

Matters that need attention are:

- a standing arrangement between public and neighbouring private hospitals to facilitate quick transfer of suitable patients.
- the removal of long delays in EDs that occur while waiting for the results of investigations and even longer periods awaiting "higher opinions" after receiving these results.
- a speedier and more detailed hospital summary addressed to the general practitioner (if known) as well as to the aged care facility concerned.

Keith S Jones, Retired Surgeon
123 Bayview Gardens, Sydney, NSW.
rgjones1@bigpond.com

1 Finn JC, Flicker L, Mackenzie E, et al. Interface between residential aged care facilities and a teaching hospital emergency department in Western Australia. *Med J Aust* 2006; 184: 432-435. □

Editor

Martin Van Der Weyden, MD, FRACP, FRCPA

Deputy Editors

Bronwyn Gaut, MBBS, DCH, DA

Ruth Armstrong, BMed

Ann Gregory, MBBS, GradCertPopHealth

Tanya Grassi, MBBS(Hons), BSc(Vet)(Hons)

Manager, Communications Development

Craig Bingham, BA(Hons), DipEd

Senior Assistant Editor

Helen Randall, BSc, DipOT

Assistant Editors

Elsina Meyer, BSc

Keerie Lawson, BSc(Hons), PhD, MASM

Tim Badgery-Parker, BSc(Hons), EL5

Josephine Wall, BA, BAppSci, GradDipLib

Proof Readers

Christine Binskin, BSc; Sara Thomas, BSc;

Rivqa Berger, BSc(Hons); Katherine McLeod, BSc(Hons)

Editorial Administrator

Keerie Harding

Editorial Assistant

Christine Hooper

Production Manager

Glenn Carter

Production Coordinator

Peter Humphries

Web Assistant

Peter Hollo, BSc(Hons), BA, LMusa

Librarian

Jackie Treadaway, BAComm(Info)

Consultant Biostatistician

Val GebSKI, BA, MStat

Content Review Committee

Craig S Anderson, PhD, FRACP;

Leon A Bach, PhD, FRACP;

Flavia M Cicuttini, PhD, FRACP;

Jennifer J Conn, FRACP, MCLinEd;

Marie-Louise B Dick, MPH, FRACGP;

Mark F Harris, MD, FRACGP;

Paul D R Johnson, PhD, FRACP;

Tom Kotsimbos, MD, FRACP;

Campbell Thompson, MD, FRACP;

Tim P Usherwood, MD, FRACGP;

E Haydn Walters, DM, FRACP;

Owen D Williamson, FRACS, GradDipClinEpi;

Jane Young, PhD, FAFPHM;

Jeffrey D Zajac, PhD, FRACP

Australasian Medical Publishing Co Pty Ltd

Advertising Manager: Peter Butterfield

Media Coordinators: Kendall Byron; Julie Chappell

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: medjaustr@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 2007 (**Payable in Advance**) to:

AMPCo, Locked Bag 3030, Strawberry Hills, NSW 2012

Individual Subscriptions (includes 10% GST)

Australia: \$A368.50, Medical students (Australia only): \$A60.00

Overseas: \$A474.00

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>



27,649 circulation as at
24 April, 2006



ISSN 0025-729X