Australian Prescriber

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Australian Prescriber is indexed by the Iowa Drug Information Service, the Australasian Medical Index and EMBASE/Excerpta Medica.

Typesetting
Barnes Desktopping and Design

Printed in Australia by
National Capital Printing
22 Pirie Street, Fyshwick, ACT 2609

Published by the
National Prescribing Service

NPS
National Prescribing Service Limited

INTERNATIONAL SOCIETY OF DRUG BULLETINS

Print Post Approved PP349181/00151 • ISSN 0312-8008

Australian Prescriber

VOLUME 27 | NUMBER 1 | AN INDEPENDENT REVIEW | FEBRUARY 2004

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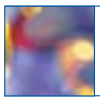

Editorial

Are new drugs as good as they claim to be?

Joel Lexchin, Emergency Department, University Health Network and Associate Professor, School of Health Policy and Management, York University, and Associate Professor, Department of Family and Community Medicine, University of Toronto, Toronto, Ontario, Canada

Key words: advertising, drug information, effectiveness, pharmaceutical industry.

(Aust Prescr 2004;27:2–3)

Approval of new drugs by the Therapeutic Goods Administration is no guarantee that they are superior or even equivalent to drugs already on the market. The drug evaluation process only assesses quality, safety and efficacy, not the therapeutic value of a drug. Assessments of the value of new drugs from Canada, France and the USA all show that at best one third of new drugs offer some additional clinical benefit and perhaps as few as 3% are major therapeutic advances.

Drug companies are spending an estimated $1–1.5 billion per year promoting their drugs in Australia.[1] One group of drugs that are heavily promoted as being better than existing products are single enantiomers of drugs that were initially introduced as racemic mixtures. The two prime examples of this phenomenon are esomeprazole which is the S-enantiomer of racemic S,R-omeprazole, and escitalopram which is the S-enantiomer of racemic citalopram. Evaluation of both new products has not demonstrated any advantages in safety or effectiveness, over their respective racemic mixtures at appropriate doses.[2,3] The main reason for bringing both to market seems to have been the imminent expiry of the patents of the original products which would result in generic competition and a significant loss of market share.

In this issue…

The launch of the bright new design of *Australian Prescriber* is an appropriate time to consider the glossy world of advertising. Joel Lexchin tells us that new drugs do not always live up to the promises of marketing campaigns, and Agnes Vitry comments on the insidious growth of advertising drugs to the public. Fortunately, Medicines Australia has imposed sanctions on companies which have breached the advertising code of conduct for prescription drugs.

Patients want information not advertising, so Christopher Newell gives advice on how to find a support group, while Anne Robinson and Susan Day tell us how to look for medical evidence electronically.

An area where the medical evidence may be confused is the interaction of paracetamol and alcohol. Garry Graham, Kieran Scott and Ric Day conclude that paracetamol is still a suitable analgesic for heavy drinkers.

The COX-2 inhibitors are another example of heavy promotion of drugs with questionable advantages. Within nine months of celecoxib coming onto the Australian market there were 2.9 million prescriptions written at a cost of over $100 million to the Pharmaceutical Benefits Scheme. Their main selling point has been their alleged superior safety. On closer examination, these claims become more difficult to justify. A meta-analysis of morbidity and mortality outcomes in clinical trials shows that the incidence of serious adverse events including death, admission to hospital, and any life-threatening event or event leading to serious disability, was significantly higher with COX-2 selective NSAIDs compared with non-selective NSAIDs.[4]

Premarketing clinical trials are typically placebo-controlled so they do not yield any comparative information. The French drug bulletin La revue Prescrire has recently researched the lack of comparative trials by looking at all the new drugs it had evaluated in 2000 and 2001. The researchers selected the indications for which there was at least one reference treatment available that was recommended in consensus statements and whose efficacy had been documented in strict comparative trials. For 80 such indications, 25% of the new drugs were licensed without any comparison with a reference treatment.

Even when comparative trials exist they may be too small or short to provide any meaningful conclusions. For example, when cisapride was marketed in Canada there were nine published randomised controlled trials, but in total only 254 patients were enrolled. Trials with small numbers have at least two major shortcomings: they will almost certainly miss serious, but relatively rare adverse effects, and it is impossible to identify sub-groups of patients in whom the drug may be particularly effective or ineffective. Cisapride has now been completely withdrawn from the market in North America and its use restricted in Australia because of serious adverse effects that only showed up after marketing. Other drugs that are intended for long-term use are often only studied in short-term randomised controlled trials. Short-term trials cannot reliably predict the ultimate benefit, or lack thereof, of drugs that are going to be taken for years. For example, none of the seven trials of losartan that were published when it was introduced in Canada was longer than 26 weeks.[5]

Drug approvals are often based on surrogate end-points,

such as changes in blood pressure or cholesterol. There is a continuing debate about the adequacy of surrogate end-points, but even their defenders concede that the surrogates have not proved to be reliable predictors of outcome in a number of cases.[6] While journal advertisements are nominally restricted to claims based on these surrogate end-points more expansive claims are often implied. For instance, although cerivastatin was only indicated for cholesterol reduction a 2000 advert in the Australian Family Physician stated that it was as 'strong as an ox' and a 'powerful treatment' possibly leaving the implication that the drug did more than just lower cholesterol.

Finally, there is evidence that data on new drugs which comes from the manufacturer, may be biased. A recent meta-analysis of research analysing the effects of industry funding found that studies funded by pharmaceutical companies were more than four times more likely to produce positive results than those with other sources of sponsorship.[7]

Given the lack of evidence that most new drugs provide any therapeutic advantage over existing treatments, what should general practitioners do? On average, patients will be better off if general practitioners avoid using new drugs until they have been available for more than five years, unless there is strong evidence of superiority over established treatments. Since doctors cannot rely on company promotion to identify this group of drugs, where should they turn? The best sources are the independent drug bulletins and books that not only provide an objective evaluation about individual drugs but also compare drug therapies. Australia is fortunate to have a number of such sources including *Australian Prescriber*, Therapeutic Guidelines and the Australian Medicines Handbook.

At the very least doctors need to avoid being rushed into using new drugs by siren calls from the pharmaceutical industry.

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Conflict of interest: none declared

Letters

Letters, which may not necessarily be published in full, should be restricted to not more than 250 words. When relevant, comment on the letter is sought from the author. Due to production schedules, it is normally not possible to publish letters received in response to material appearing in a particular issue earlier than the second or third subsequent issue.

Dental patients taking warfarin

Editor, – The management of patients taking anticoagulants who require dental extractions is of interest to both medical and dental practitioners.[1] It has been common practice to discontinue anticoagulants to reduce the risk of post-extraction bleeding. Lately however some studies have questioned the need for reduction or withdrawal of warfarin when the INR was within the therapeutic range.

We have recently reported a study involving 70 patients who were taking warfarin for a variety of medical conditions and required dental surgery.[2] A control group of 35 patients stopped their warfarin before their minor oral surgery while the other patients continued treatment (INR 2–4). Local haemostatic measures were only used when the procedure involved removal of bone or soft tissue surgery.

There was no significant post-treatment haemorrhage in either group. This suggests that patients can safely undergo minor oral surgical procedures without alteration to their therapeutic anticoagulant regimen. This reduces the risk of thromboembolic episodes occurring when the warfarin is stopped.

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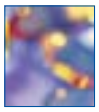

Is Australia free from direct-to-consumer advertising?

Agnes Vitry, Senior Lecturer, Quality Use of Medicines and Pharmacy Research Centre, University of South Australia, Adelaide, and member of Healthy Skepticism

Summary

Direct-to-consumer advertising is the promotion of prescription medicines to the general public. It is legal in New Zealand and the USA where it is a very effective marketing strategy and is growing rapidly. Several studies have shown that direct-to-consumer advertising commonly contains misleading, inaccurate or unbalanced information. Direct-to-consumer advertising is not currently allowed in Australia, however drug companies can try to overcome the ban. They can do this by running disease awareness campaigns that indirectly promote their products, by supporting professional and patients' organisations and by sponsoring journalists. We need to develop strategies to counteract these campaigns and give all Australians access to unbiased, accurate and comprehensive information about their treatment options.

Key words: quality use of medicines, consumer information, drug industry.

(Aust Prescr 2004;27:4–6)

Introduction

Direct-to-consumer advertising is the promotion of prescription medicines to the general public. New Zealand and the USA are the only two countries in the Organisation for Economic Co-operation and Development (OECD) that allow direct-to-consumer advertising of prescription medicines. Direct-to-consumer advertising is not currently allowed under Australia's Therapeutic Goods Act, however the legality of direct-to-consumer advertising in New Zealand and the USA has significant implications for Australia. Australia and New Zealand are moving towards a common regulatory drug agency that will supervise the promotion of prescription medicines in both countries. Pharmaceutical manufacturers have also signalled that Australia's restrictions on direct-to-consumer advertising are one of the targets of the current US-Australia negotiations for a free trade agreement between the two countries.[1]

Impact of direct-to-consumer advertising

The impact of direct-to-consumer advertising on the New Zealand health system was reviewed during 2003 by a group including professors of general practice from all of New Zealand's four Schools of Medicine.[2] Their report summarised the international evidence on the economic significance of direct-to-consumer advertising, its role in consumer education and its implications for medicine use and safety. It also included surveys of general practitioners' and consumers' views on direct-to-consumer advertising.

The review found that spending on direct-to-consumer advertising is growing exponentially. In the USA in 1995 US$375 million was spent on direct-to-consumer advertising, rising to over US$2.7 billion in 2001. This spending represented nearly one third of the total spending on drug promotion in the USA. There was a corresponding increase in sales of prescription drugs. Between 1999 and 2000 sales increased by US$20.8 billion and the 50 medicines with the highest advertising budgets accounted for nearly half of this increase. These trends are mirrored in New Zealand. In 2001–02 four heavily advertised drugs accounted for almost a quarter of the increase in the dispensing of pharmaceuticals listed on the Pharmaceutical Schedule.

Patients' requests for medicines are a powerful driver of prescribing decisions. In New Zealand 69% of the general practitioners who responded to a survey reported that they had been under pressure from their patients to prescribe advertised medicines, even if they felt that these medicines offered little added benefit over drugs they would normally use.[2]

Direct-to-consumer advertising commonly contains misleading, inaccurate or unbalanced information. In New Zealand a survey of three months of advertisements found that 31% of all direct-to-consumer advertisements, including five out of six television advertisements, were in breach of the Medicines Act. In the USA, between 1997 and 1999, 52% of direct-to-consumer advertisements were found to be in violation of the Food, Drug and Cosmetics Act. A US survey showed that printed direct-to-consumer advertisements commonly failed to provide a quantitative description of a drug's benefits, but mainly included emotional appeals and tended to promote the medicalisation of normal health and minor illnesses.[3]

The New Zealand review concluded that direct-to-consumer advertising does not provide consumers with objective information on risks, benefits and options of treatment and is a serious risk to the sustainability of health systems. The reviewers have called for a ban of direct-to-consumer advertising in New Zealand.[2] This is now under consideration.[4]

De facto direct-to-consumer advertising in Australia

In Australia, the Code of Conduct of Medicines Australia (previously the Australian Pharmaceutical Manufacturers Association) complements the legislative requirements and prohibits direct-to-consumer advertising. The Code has a number of loopholes, however, that allow companies to subvert the ban on direct-to-consumer advertising.

The Code of Conduct relies mainly on spontaneous complaints, and voluntary compliance by drug companies. Drug companies can advertise prescription products to the public until they get 'caught', if by chance somebody bothers to send a complaint to Medicines Australia. This happened last year when Sanofi-Synthelabo advertised their hypnotic zolpidem in the Qantas magazine in October 2002. A complaint was lodged, the company was found to have breached the code and was fined $50 000. In the meantime, the illegal advertisement may have been seen by thousands of Qantas travellers.

De facto direct-to-consumer advertising increasingly occurs in the form of advertisements about specific diseases and conditions, which do not mention the name of a drug, but may include the company name or their logo. For example, Roche has conducted an extensive advertising campaign for orlistat, which is marketed for weight loss. The campaign included television advertisements, advertisements in magazines, glossy brochures displayed in community pharmacies, a free call number and a web site (www.loseweightgainlife.com.au).

In this campaign the public was told the story of 'Linda' who took a 'life-changing decision' and states 'I spoke to my doctor about modern innovative approaches to weight loss. That was 18kg ago!'. Other advertisements showed photos of Linda at the swimming pool and stated 'Two years on and Linda is 30 kilos lighter and a whole lot wiser'. Concurrent mailings to doctors inform them about the 'Lose Weight Gain Life Program' which is in its '3rd successful year' and includes reproductions of consumer advertisements and a letter with the logo 'Xenical Lose Weight. Gain Life'. The advertisements to consumers do not mention the name of the drug and so are not banned under the current Medicines Australia Code of Conduct. The benefits of orlistat are exaggerated as a systematic review of the clinical effectiveness of orlistat found that the mean weight loss observed with orlistat was only 3.2 kg more than with placebo after two years.[5] The advertising campaign does not link with national initiatives, such as Active Australia, which encourage participation in physical activity. This campaign may raise false hopes in many people and may put general practitioners under great pressure to prescribe orlistat even if not clinically appropriate.

Sildenafil has also been the focus of extensive campaigns in Australia. Pfizer has indirectly promoted sildenafil by using celebrity endorsements in newspaper and television advertisements featuring the legendary soccer player Pelé urging men to consult a doctor about erection problems.

Disease awareness campaigns

Disease awareness campaigns can be used as a strategy to extend the boundaries of treatable illness and to expand markets for new products.[6] Pharmaceutical companies are orchestrating campaigns by sponsoring professional or consumer groups, without revealing that they have initiated and financially supported them. For example, Merck Sharp & Dohme has promoted finasteride with advertisements that urge balding men to see their doctor. At the same time the company orchestrated a campaign in the Australian media with experts suggesting that losing hair could lead to panic and other emotional difficulties, and could even have an impact on job prospects and mental well-being. It was not disclosed that the experts quoted were provided by the public relations firm in charge of the campaign.[6]

The Australian Consumers' Association recently reported on one of these disease awareness campaigns.[7] The Healthy Weight Task Force was marketed as being the 'first ever network of primary healthcare professionals to have formed in response to the rising levels of excess weight and obesity in Australia'. The task force considered orlistat to be the most effective and appropriate form of weight loss. The findings and educational materials produced by the Healthy Weight Task Force were broadly promoted to the mainstream media and directly to general practitioners. What was not stated in any information provided by the Healthy Weight Task Force was that the pharmaceutical company, Roche, funded the project and that the recommended product was produced by Roche.

Another tactic used to promote media coverage of particular health issues is the sponsorship of journalists to attend conferences overseas. Pharmaceutical companies have also established journalism awards like the Eli Lilly award for 'excellence in journalism in the field of menopause'.[8]

Last year a media agency was even more innovative and won the national award in the 'best one-off media campaign' for Australia. Novo Nordisk had commissioned the agency to plan a campaign to increase the sales of a topical preparation of oestradiol. The agency devised a promotional campaign involving hairdressers.[9] The address of a web site about painful intercourse was emblazoned in reverse on capes for women to wear in hairdressing salons.

Conclusion

Like other commercial enterprises, drug companies focus on making profits, and this determines their priorities. They have been pressing governments to allow direct-to-consumer advertising. In 2002, they lobbied the European parliament to relax the European Union ban on direct-to-consumer advertising. However, the health ministers of the European Union rejected the proposed amendment in June 2003 following an intense counter-campaign organised by consumer and health professional organisations.

Drug companies are trying to get around the current ban in Australia by running disease awareness campaigns that indirectly promote their products and by sponsoring journalists, and professional and patients' organisations. Government agencies, health professional and consumer organisations concerned about the quality use of medicines in Australia need to develop a range of strategies on how best to counteract these campaigns. We also need to improve the public's access to unbiased, accurate and comprehensive information about the options for drug treatment.

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Conflict of interest: none declared

Self-test questions

The following statements are either true or false (answers on page 23)

1. Some consumer organisations receive funding from drug companies.
2. Direct-to-consumer advertising is not associated with increased prescribing of the advertised drugs.

Medicines Australia Code of Conduct: breaches

Medicines Australia (formerly the Australian Pharmaceutical Manufacturers Association) has a code of conduct to guide the promotion of prescription drugs in Australia.[1,2]

The report of the Code of Conduct Committee for 2003 says that 48 new complaints about drug promotion were received. Five complaints were withdrawn and some are unresolved, so the report details the assessment of 36 cases.[3]

Most of the complaints came from rival pharmaceutical companies, but 11 came from health professionals, five were made by the Therapeutic Goods Administration and one by a consumer organisation. Seven complaints were found not to involve a breach of the Code of Conduct and one was dismissed by the Code of Conduct Appeals Committee. This leaves 28 complaints in which at least one breach of the Code was found (Table 1).

Note

The Medicines Australia Code of Conduct is available from:

Medicines Australia
Level 1, 16 Napier Close
DEAKIN ACT 2600
Tel: (02) 6282 6888
Fax: (02) 6282 6299
Web site: www.medicinesaustralia.com.au

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Table 1

Breaches of the Code of Conduct July 2002 – June 2003

Company	Complaint		Sanction imposed by Code of Conduct Committee
	Drug – brand name	Drug – generic name	
Alcon	Travatan	travoprost	Withdrawal of promotional material. Corrective letter. $10 000 fine
	Travatan	travoprost	$45 000 reduced to $7500 on appeal
	Travatan	travoprost	Withdrawal of promotional material $60 000 fine
AstraZeneca	Arimidex	anastrozole	Withdrawal of promotional material $7500 fine
	Nexium	esomeprazole	Withdrawal of promotional material
Aventis Pasteur	Vaxigrip	influenza vaccine	Withdrawal of patient leaflet
Aventis Pharma	Clexane	enoxaparin	Withdrawal of promotional material. Publication of erratum notice.
Baxter	NeisVac-C	meningococcal vaccine	Withdrawal of promotional material. Corrective advertisement.
	NeisVac-C	meningococcal vaccine	Withdrawal of promotional material
	NeisVac-C	meningococcal vaccine	Withdrawal of promotional material $5000 fine
Bayer	Adalat Oros	nifedipine	Withdrawal of promotional material. Corrective advertisement. $15 000 fine
Boehringer Ingelheim	Mobic	meloxicam	Withdrawal of promotional material $15 000 fine
Bristol-Myers Squibb	Pravachol	pravastatin	Withdrawal of promotional material
CSL	Tramal	tramadol	Withdrawal of promotional material. Corrective advertisement.
	CSL web site		Withdrawal of promotional material
Eli Lilly	Evista	raloxifene	Withdrawal of promotional material. Corrective advertisement.
Mayne Pharma	Pamisol	pamidronate	Inappropriate delivery of promotional material not to be repeated
Merck Sharp & Dohme	Fosamax	alendronate	Withdrawal of promotional material. Corrective letter. $25 000 fine
Mundipharma	Oxycontin	oxycodone	Withdrawal of promotional material
Novo Nordisk	Vagifem Public awareness campaign and web site	oestradiol	Withdrawal of promotional material. Amendments to web site. $20 000 fine
Organon	Livial	tibolone	Withdrawal of promotional material $10 000 fine
Pfizer	Viagra Public advertisement	sildenafil	Withdrawal of promotional material $10 000 fine
	Viagra Pharmacy poster	sildenafil	$10 000 fine
Roche	Healthy Weight Taskforce web site		$75 000 fine reduced to $50 000 on appeal
Sanofi-Synthelabo	Stilnox	zolpidem	Advertisement not to be used again in lay media $50 000 fine
Schering-Plough	Elocon	mometasone	Withdrawal of promotional material
Wyeth	Efexor	venlafaxine	No further appearance of promotional material
	Efexor	venlafaxine	No further appearance of promotional material

Editorial comment: see page 8

Editorial comment

A new edition of the Code of Conduct was implemented in 2003. Although there has not been a dramatic increase in complaints the Code of Conduct Committee has imposed more fines. Although these fines would be substantial for an individual they are relatively small in comparison to the companies' advertising budgets.

Readers of *Australian Prescriber* have expressed an interest in knowing more about the background of the complaints. More detail can be found in the report of the Code of Conduct Committee, but a common theme this year was the promotion of prescription medicines to the public.

Direct-to-consumer advertising is not allowed in Australia, so drug companies have to be careful that their information campaigns, such as disease-awareness activities, do not advertise their products.[1] Three of the breaches involve companies which provided information on web sites.

Novo Nordisk, which produces Vagifem (oestradiol) pessaries, promoted a web site about atrophic vaginitis, through hairdressers. While the hairdressers' capes, which displayed the web site address, were not considered to be educational material, the Code of Conduct Committee concluded that the information on the web site was sufficient to allow a woman to seek a prescription for a specific product.

Roche was found to have breached the code as it was not clear that it was the sponsor of the web site of the Healthy Weight Taskforce. It was also considered that Roche should take more responsibility for the activities of the Healthy Weight Taskforce, to ensure prescription medicines were not promoted to the public.

The Therapeutic Goods Administration complained about the CSL web site. This was found to contain information which could promote particular products to the public.

Other breaches of the code involved written material for consumers. A pharmacy poster about Pfizer's sildenafil was a serious breach, as was an in-flight magazine advertorial by Sanofi-Synthelabo. A pamphlet produced by Aventis Pasteur for patients to receive after influenza immunisation was considered to be promoting a particular product.

Two of the unsuccessful complaints involved competitions. The two companies involved had offered hand-held computers as prizes. As the Committee considered that the perceived value of the prizes was close to the limit of what might withstand public and professional scrutiny, no breaches were found.

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Book review

CARPA Standard Treatment Manual.

A clinical manual for primary health care practitioners in remote and rural communities in Central and Northern Australia. 4th ed.

Alice Springs: Central Australian Rural Practitioners Association; 2003.

364 pages. Price $35 plus postage.

Dennis Pashen, Associate Professor and Director, Mount Isa Centre for Rural and Remote Health, Mount Isa, Qld

The new edition (fourth) of the CARPA Standard Treatment Manual provides a reference manual for remote Aboriginal health workers, nurses and doctors in the Northern Territory. It is part of a series of primary healthcare texts for the Northern Territory. The CARPA manual is a unique resource written for and especially valued by remote health staff in the Northern Territory, but it is also used by remote health service providers throughout Australia and overseas.

The manual provides simply worded, readable and easily referenced information. I accepted the challenge of my staff to find named topics for emergency information retrieval. In all instances it took me less than two minutes to find the information they wanted by using the index section.

The manual's Northern Territory roots are obvious with the choice of topics, simple diagrams and easily understood instructions and language. The applicability to Aboriginal Australia is also obvious with topics such as kava, sorry business, worms, hanging and spear injuries. In all situations the information is simple, to the point and relevant. The presentation is attractive, the manual's font size is 12 points or greater, a blessing for those of us whose arms have shortened with the years.

I have compared the CARPA manual with the Primary Clinical Care Manual (PCCM) from the Queensland Government and the Royal Flying Doctor Service (RFDS) Queensland, and the manual of Médecins Sans Frontières. It certainly equals these excellent texts and is probably the most user-friendly manual. Each manual is designed for use in similar contexts but has its own specific idiosyncrasies, such as relationship to State legislation, RFDS medical chests and the Third World. The

PCCM is more detailed (here read smaller font), more thorough and more legislative in approach, while the CARPA manual is more readable and more easily understood. It also provides some cultural context in the assessment and application of management of conditions, such as depression, family domestic violence, and petrol and solvent sniffing. Readers from outside the Northern Territory should take into account their State legislative restrictions and State health clinical guidelines if they use the CARPA manual in their own local facilities.

In short, this is a highly readable and applicable manual which keeps things simple. I would recommend it and its accompanying manuals to remote health service staff and students of all disciplines; medical, nursing and indigenous health workers. It would also be useful for those interested in Aboriginal health, for example remote facility professionals, or people working in Aboriginal Community Controlled Health and Medical Services. Its previous editions have been standard texts in our Yacca Health Services Library in Mount Isa for some years and they have some of the highest borrowing rates. This edition will be no exception.

Book review

Aboriginal primary health care: an evidence-based approach.

Sophia Couzos and Richard Murray, editors (for the Kimberley Aboriginal Medical Services Council). 2nd ed.

Melbourne: Oxford University Press; 2003. 704 pages. Price $95.

Rosemary Aldrich, NHMRC Scholar, Aboriginal and Torres Strait Islander Health, University of New South Wales, and Conjoint Academic, University of Newcastle, NSW

Anybody who read or used the first edition of Couzos and Murray's book[1] will recall that it represented a vast amount of work by many individuals. People who work in clinical medicine will also know how quickly such a collection of evidence can become dated. The second edition of 'Aboriginal primary health care: an evidence-based approach' is therefore welcome and impressive. There are new sections, expanded sections, and all sections have been updated.

The book aims to be a reference for organisations regarding defined Aboriginal health issues. It also serves as a guide to clinical practice through explicit supported statements, while recognising the desirability of local adaptation of advice and essential 'respectful engagement with the local knowledge and experience of Indigenous people'.

The whole book is a product of the experience of Indigenous people, beginning with the first chapter 'Aboriginal health and the policy process'. Recognising his wisdom and legacy, each chapter is prefaced by a quote from the late Dr Puggy Hunter, a long-time chairman of the National Aboriginal Community Controlled Health Organisation. The book demonstrates that to be involved in Aboriginal primary health care is to be involved in a struggle for self-determination and community identity, and it successfully presents both the clinical evidence and the imperative to respect, recognise and promote autonomy and self-value among patients as foundations of good health care.

While the book is lengthy – at more than 600 pages it is about half as long again as the 1999 edition, with bigger pages – its structure assists in finding desired information. As with the first edition, each chapter concerned with a specific condition begins with a summary. This is expanded upon in the pages that follow, in a systematic order: goals and targets (published statements of intent relating to that condition), burden of disease, risk factors, case definition, diagnostic procedures, effectiveness of prevention, implementation of programs, data collection and, for most, performance indicators. References and notes are at the end of the chapters. Each chapter has shaded boxes of key points, which I found added to the presentation of the information.

Importantly, the second edition has chapters on substance abuse, custodial health and suicide and self-harm, recognising tragic realities for many Aboriginal people and communities. In these and other chapters the book successfully injects evidence about the mediating effect that socio-economic and other determinants of health (such as history, ethnicity, geography) might have in health outcomes, and provides practical advice about how to practise optimally given those considerations. Notably, a National Health and Medical Research Council review on the use of socio-economic evidence in clinical practice guidelines found that the first edition of this book and other related guidelines were one of only two sets of guidelines **worldwide** into which evidence about the socio-economic determinants of health had been incorporated.[2]

The book's use of evidence, ease of access despite the complexity of information and its courage in grappling with difficult issues make this book a resource which no primary healthcare practitioner should be without.

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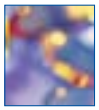


Management of acute gout

Neil McGill, Royal Prince Alfred Institute of Rheumatology and Orthopaedics, University of Sydney, Sydney

Summary

The appropriate management of acute gout begins with confirming the diagnosis. When the diagnosis is uncertain consider other possible causes of joint inflammation, particularly sepsis. Anti-inflammatory therapy promptly relieves the pain of acute gout. The rapidity with which anti-inflammatory medication is commenced following the start of an attack is of greater importance than the specific drug chosen or the route of administration. Changes to therapy that aggravate the acute attack, such as altering hypouricaemic medication, should be avoided.

Key words: colchicine, non-steroidal anti-inflammatory drugs, uric acid.

(Aust Prescr 2004;27:10–3)

Introduction

Acute gout presents as an acutely inflamed joint. Other conditions have the same presentation so confirming the diagnosis is a sound platform for immediate management and good long-term advice. The diagnosis must be certain if there is a decision to use life-long hypouricaemic therapy. Aspirating the joint is ideal management[1], but is not always possible. The ability to aspirate the involved joint influences the choice of therapy. If infection cannot be adequately excluded then corticosteroid therapy (intra-articular or oral) is best avoided.

What causes gouty arthritis?

Sodium urate crystals sometimes form in patients with hyperuricaemia. Gout develops if there is an inflammatory reaction to these crystals.

Hyperuricaemia

In body fluids, sodium urate reaches saturation at a uric acid concentration of about 0.42 mmol/L. Higher concentrations represent hyperuricaemia and are associated with increased incidence and prevalence rates for gout. For a given concentration of hyperuricaemia, men and women have equal risk of gout. However, men have higher concentrations of uric acid and therefore a higher prevalence of gout, whereas premenopausal women and children have lower concentrations and therefore a lower prevalence of gout.

The tendency of laboratories to report a range of 'normal' values (which differ considerably between laboratories) contributes to confusion. It makes little sense to consider what is 'normal' – what matters is whether the concentration places the person at risk of crystal formation. The 'healthy' uric acid concentration is less than 0.42 mmol/L.

Crystal formation and the inflammatory response

The formation of urate crystals only occurs in about 20% of people with uric acid concentrations above the saturation level, however the likelihood increases as the concentration increases. Crystals form initially within joints (synovium) and subsequently in other connective tissue sites such as bones, skin and tendons. An aggregation of crystals is called a tophus. Although hyperuricaemia is required for crystal formation, it is not the full explanation. Urate crystals form in only certain locations, and not at all in most people with hyperuricaemia. Various biological substances, such as IgG, influence the nucleation and growth of urate crystals. The balance between inhibitors and promoters of crystal formation probably plays a major role in determining if and where urate crystals form.

Urate crystal formation occurs slowly (weeks to months) and does not produce symptoms. The inflammatory system largely (but not completely) ignores the crystals most of the time, but eventually an inflammatory response occurs resulting in an attack of gout. Many components of the inflammatory system are involved in acute gouty inflammation and neutrophils play a key role.

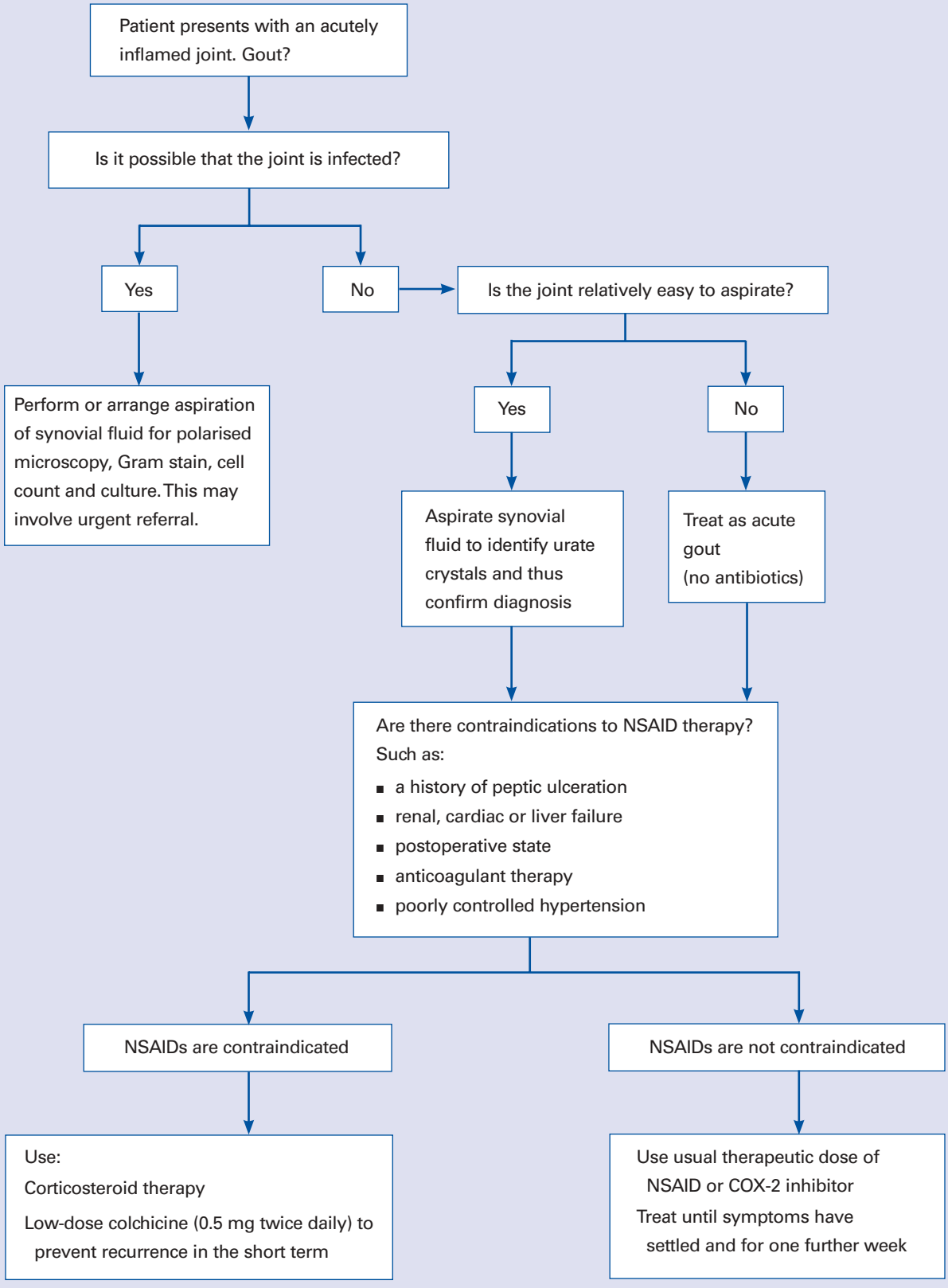
Management (Fig.1)

The management of acute gout relies on an understanding of what is safe and appropriate when the diagnosis is likely (but may not have been proven). Therapy needs to be modified in light of other health problems, particularly contraindications to non-steroidal anti-inflammatory drugs (NSAIDs). The acute attack is also an opportunity to assess and manage associated disorders such as obesity, excessive alcohol consumption, hypertension, hyperlipidaemia and renal insufficiency. Controlling these problems may prove to be of greater long-term benefit to the patient than controlling their hyperuricaemia.

There is a strong suggestion that how soon therapy is commenced after the onset of symptoms in acute gout is more important than which treatment is chosen. A few hours can make a substantial difference.

Fig. 1

Management of acute gout



Joint aspiration

Aspiration for Gram stain, culture and synovial fluid examination is essential if there is any possibility that the joint may be infected and is of great help if gout has not been previously diagnosed. Polarised light microscopy will identify the strongly negatively birefringent crystals of monosodium urate monohydrate. It is easiest to obtain synovial fluid during an acute attack when the joint is swollen. Large joints are relatively easy to aspirate whereas others, such as the midtarsal joints that are commonly affected by acute gout, are very difficult.

The aspirated fluid should be examined promptly, because within 24 hours the cell count falls and crystals become more difficult to see. If a delay is unavoidable, the fluid should be stored at –20°C to –70°C which will preserve cell and crystal morphology well for several weeks. Crystal identification in synovial fluid is dependent on the skill of the observer and the quality of the microscopic equipment, although urate crystals (unlike calcium pyrophosphate crystals) are relatively easy to detect.

NSAIDs including COX-2 inhibitors

A non-steroidal anti-inflammatory drug (NSAID) at the usual therapeutic dose is appropriate for most patients who are otherwise well. All NSAIDs including COX-2 inhibitors are effective in acute gout. Double-blind comparative studies between NSAIDs (including NSAID versus COX-2 inhibitor[2]) have shown no significant difference in efficacy, but these trials had little power to detect any difference. Treatment is continued at least until the attack has settled and often for one further week.

> ‘Any sudden change (especially fall) in the concentration of serum uric acid will exacerbate the attack’

Corticosteroids

Various forms of corticosteroid therapy have been studied, but there are few high quality controlled trials in acute gout. In a study of 100 patients (76 of whom completed the trial) intramuscular adrenocorticotrophic hormone (ACTH) 40 IU produced faster relief (3 versus 24 hours) and fewer adverse effects than indomethacin. A non-randomised, non-blinded study comparing triamcinolone acetonide 60 mg intramuscularly with oral indomethacin 50 mg three times daily showed no difference in efficacy and toxicity. A randomised non-blinded study of ACTH 40 IU and triamcinolone 60 mg intramuscularly in 31 patients with acute gout found a higher re-injection rate with ACTH, but no difference in time to resolution. Another non-randomised, non-blinded study in 27 patients with acute gout found no difference in efficacy between oral diclofenac 150 mg/day, intravenous methylprednisolone 125 mg and intramuscular betamethasone 7 mg. Oral prednisone is also effective. Prednisone 10 mg twice daily for three to five days (depending on the speed of resolution of the attack) followed by a progressive reduction to zero over two weeks is an effective regimen.

Intra-articular corticosteroid (betamethasone 5.7 mg or methylprednisolone acetate 40 mg for a knee joint) is effective and convenient when only one joint is involved and when that joint is easy to inject. In this situation it is usually possible to aspirate joint fluid to confirm the diagnosis and exclude sepsis. Provided joint fluid has been obtained and has been sent to the laboratory for culture, it is appropriate to go ahead with the corticosteroid injection. It is not safe to inject a joint in which sepsis is a possibility if it has not been possible to obtain synovial fluid. Injecting corticosteroid is likely to temporarily suppress the joint inflammation and result in a delay in recognition of the joint infection.

Colchicine

Although this drug has been used to treat acute gout since the sixth century and is of proven efficacy, it should rarely be prescribed as primary treatment because of its toxicity. In the only controlled trial of colchicine in acute gout[3], two-thirds of the patients treated with colchicine had improved after 48 hours, but all had developed diarrhoea after a median of 24 hours. Low-dose colchicine (0.5 mg twice daily) however is well tolerated and effective at preventing recurrences[4] particularly after once-off treatments such as intra-articular corticosteroid. NSAIDs including COX-2 inhibitors can also be used to prevent recurrence.

Avoid changing hypouricaemic therapy

During the treatment of acute gout any sudden change (especially fall) in the concentration of serum uric acid will exacerbate the attack. Patients taking regular hypouricaemic therapy should therefore not stop their treatment. Likewise, hypouricaemic therapy should not commence until after the attack has settled. The use of concurrent low-dose colchicine (0.5 mg twice daily) during the introductory phase of hypouricaemic therapy reduces the frequency of attacks during that relatively high-risk period.

Conclusion

The management of a patient presenting with acute gout involves exclusion of sepsis, confirmation of the diagnosis with crystal identification whenever possible and prompt treatment with an anti-inflammatory drug. Low-dose colchicine

is sometimes used to reduce recurrences. Changes of hypouricaemic therapy should be avoided during an acute attack. The decision to use hypouricaemic therapy for gout (usually a lifelong commitment) is never urgent and should be delayed at least until the acute attack has settled.

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Conflict of interest: none declared

Self-test questions

The following statements are either true or false
(answers on page 23)

3. Allopurinol should be stopped during an acute attack of gout.
4. Formation of sodium urate crystals immediately precipitates an acute attack of gout.

Book review

COPD in primary care. H. John Fardy, David Bellamy and Rachel Booker.

Sydney: McGraw-Hill Australia; 2003.

195 pages. Price $32.95 (including GST)*

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The title 'COPD in primary care – all a GP needs to know about chronic obstructive pulmonary disease (Australian adaptation)' describes the breadth of the book content accurately. The style makes for easy reading with the key points presented at the beginning of each chapter. It also facilitates a very quick review of the book by readers letting them focus where they want to read in depth.

There is an appropriate background of pathology, physiology, diagnostic strategies and management strategies. The COPD-X Guidelines for Australia[1] are also summarised. There is a chapter on possible new therapies for chronic obstructive pulmonary disease (COPD) which are useful for practitioners to answer patients' common question – 'What is likely to be new in COPD?'.

The book's strengths include:

- highlighting and providing information on pulmonary rehabilitation and social issues
- touching on end-of-life issues
- a challenging chapter on the identification of COPD patients in general practice, which will challenge the current system of care and point to strategies to improve outcomes for patients
- useful contact numbers for a range of activities, including the Quitline for smoking cessation.

There are several weaknesses which affect the reading of the book:

- non-approved medications for COPD are included in the book (this highlights the difficulty of updating, when it is likely that some medications will be approved by the Therapeutic Goods Administration for use in Australia in the future)
- the levels of evidence are not highlighted within the book although there is a table outlining the classification of levels of evidence
- Table 11.1 ('Deciding whether to treat an acute exacerbation at home or in hospital') could be made more relevant to the Australian setting. It is most important for practitioners to take away the message that **it is the rate of change** of arterial oxygen tension that is the key issue in deciding whether someone is to be admitted, rather than the absolute value. Additionally, the absolute value given in this table is low by Australian standards. It would also be preferable to put in oxygen saturations because pulse oximetry will become more of a standard as the equipment becomes more widely available.
- the chapter on smoking provides a broad-brush approach, but does not engage all of the specifics that can be provided in this process. It would be useful to reference Australian guidelines such as those contained in the Therapeutic Guidelines: Respiratory.

Overall the book is going to be a useful reference for people to brush up on issues with regard to COPD management and to provide accurate information to the patient.

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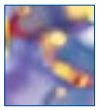
1. Thoracic Society of Australia and New Zealand; The Australian Lung Foundation. Chronic Obstructive Pulmonary Disease (COPD) Australian and New Zealand Management Guidelines and the COPD Handbook. Lutwyche, Qld: The Australian Lung Foundation; 2002.

* *Australian Prescriber* readers are offered 15% discount by McGraw-Hill Australia (phone 02 9900 1854; quote code COPD2004).



Alcohol and paracetamol

Garry G. Graham, Kieran F. Scott and Richard O. Day, Department of Clinical Pharmacology, St Vincent's Hospital and School of Medical Sciences, University of New South Wales, Sydney

Summary

There are concerns that therapeutic doses of paracetamol may be hepatotoxic in patients who regularly drink moderate to large amounts of alcohol. Critical examination of case histories reveals that overdoses of paracetamol were responsible for the hepatotoxicity in many cases. Experimental studies in which paracetamol was taken for short periods also show no interaction. Paracetamol is therefore a suitable analgesic for patients who regularly drink moderate to large amounts of alcohol but, as with all patients, care should be taken to minimise the chances of overdose.

Key words: acetaminophen, analgesia, hepatotoxicity, liver.

(Aust Prescr 2004;27:14–5)

Introduction

It is well known that overdoses of paracetamol are hepatotoxic. There have been claims that alcohol potentiates this hepatotoxicity to such an extent that therapeutic doses of paracetamol become hepatotoxic in some patients. The so-called 'alcohol-paracetamol syndrome' describes the hepatotoxicity which is said to occur from the ingestion of therapeutic doses of paracetamol in moderate to heavy drinkers of alcohol.[1]

The belief about the hepatotoxicity of paracetamol in people who drink alcohol regularly is shared by the USA Food and Drug Administration (FDA) which now requires that paracetamol sold in the USA be labelled with the warning stating that, 'If you consume 3 or more alcoholic drinks every day, you should ask your doctor whether you should take acetaminophen (paracetamol) or other pain relievers/fever reducers. Acetaminophen may cause liver failure.' Canada has also issued a warning about the possibility of liver damage in heavy users of alcohol who take more than the recommended dose of paracetamol.

Are these warnings justifiable? Should the Australian authorities mandate a similar warning on the label of paracetamol products? What can doctors say to patients who consume alcohol regularly?

Examining the evidence

Several reasons for the warnings about the hepatotoxicity of paracetamol may be put forward and examined:

- case reports of hepatotoxicity produced by therapeutic doses of paracetamol in alcoholics
- a metabolic interaction between alcohol and paracetamol
- depletion of glutathione
- erring on the side of patient safety.

Case reports

There are many case reports which claim that therapeutic doses of paracetamol have been associated with hepatotoxicity in alcoholics. However, recent critical examination shows that many of these cases of hepatotoxicity were caused by overdoses of paracetamol, not therapeutic doses.[2,3] The patients may have claimed that they only consumed therapeutic doses, but the plasma concentrations indicate that many had taken overdoses of paracetamol. There is no evidence that therapeutic doses of paracetamol can accumulate to the levels found in many of these patients. 'Although the possibility remains that chronic consumption of alcohol does increase the risk of paracetamol hepatotoxicity in man, there is insufficient evidence to support the alleged major toxic interaction'.[3]

A metabolic interaction between alcohol and paracetamol

The hepatotoxic metabolites of paracetamol are produced in the liver largely through the activity of cytochrome P450 2E1. Alcohol has variable, although generally modest, effects on this enzyme system. Although alcohol induces cytochrome P450 2E1, it inhibits the enzyme while it is present in the body. Theoretically, alcohol may therefore protect the liver by inhibiting the oxidative metabolism of paracetamol. Alcohol could, however, make the liver more sensitive to paracetamol, during the period of continuing induction of cytochrome P450 2E1, after alcohol has been eliminated from the body. However, alcohol appears to produce only a small increase in the oxidative metabolism of paracetamol.[4] There was no biochemical evidence of liver damage, when paracetamol 4 g daily was given to alcoholics for two days.[5]

Depletion of glutathione

The hepatotoxic quinoneimine metabolite of paracetamol reacts with glutathione. When concentrations of glutathione are very much reduced, there is a reaction with proteins which leads to centrilobular necrosis. The depletion of glutathione in chronic alcoholics may lead to hepatotoxicity, however, this is probably unlikely.[6]

Patient safety

In 2000, the American College of Rheumatology recommended that paracetamol should be avoided in patients with chronic alcohol abuse and used with caution in patients with existing liver disease. At the time, there was considerable criticism about this warning and, in reply, the College stated, 'We believe it better to err on the side of patient safety given that alternative treatments are available …'.[7]

Following the critical analyses which have been published since 2000[2,3], the case for a label which may 'err on the side of patient safety' is now very weak. Poorly justified statements are not helpful and distract attention from well-based warnings. Alternative treatments may also present considerable problems.

Alternative analgesics

The non-selective non-steroidal anti-inflammatory drugs (NSAIDs), such as aspirin or ibuprofen, are relatively contraindicated in heavy drinkers because of the gastrointestinal damage produced by these drugs and alcohol. Furthermore, NSAIDs may also cause bleeding from varices. The selective COX-2 inhibitors, such as celecoxib and rofecoxib, may decrease the likelihood of gastrointestinal bleeding although evidence for the safety of these drugs in alcoholics with liver disease is currently lacking. Narcotic analgesics may be used in severe pain, but care should be taken with their dosage because of possible decreased metabolic clearances and respiratory depression in alcoholics.

Conclusions

Hepatotoxicity from therapeutic doses of paracetamol is unlikely in patients who consume moderate to large amounts of alcohol daily. However, patients with severe alcoholism should be instructed or supervised about the correct dosage of paracetamol. The depression often associated with alcoholism may make them more likely to take an overdose of paracetamol. Furthermore, the memory loss often seen in severe alcoholism may make patients unaware of having taken more than the recommended dose.

In the UK limiting the single sale of paracetamol tablets or capsules to 16 in general stores and 32 in pharmacies has been correlated with a reduction in the number of overdoses with paracetamol. Restricting the availability of paracetamol to patients with severe alcoholism and/or depression associated with alcohol abuse may similarly be associated with a decreased number of overdoses of paracetamol.

Overdoses of paracetamol are a major problem. The occurrence of hepatotoxicity in patients who consume alcohol regularly and who take therapeutic doses of paracetamol is a very contentious topic. At this stage, paracetamol appears to be a reasonable analgesic or antipyretic drug to use in compliant patients who consume alcohol regularly. However, longer-term controlled studies are still required to clarify further the safety of paracetamol when taken regularly in combination with moderate to large amounts of alcohol.

After a recent review, the Therapeutic Goods Administration's decision that no warning regarding alcohol should be added to labels on paracetamol products seems reasonable.[8]

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GlaxoSmithKline have supported a research study by Professor Graham on the mechanism of action of paracetamol. Professor Day is or has been a member of advisory boards for the companies marketing celecoxib (Pfizer), rofecoxib (Merck Sharp & Dohme) and paracetamol (GlaxoSmithKline).

Self-test questions

The following questions are either true or false *(answers on page 23)*

5. Alcohol forms a toxic complex with paracetamol.
6. People who need paracetamol regularly should be advised not to drink alcohol.

The value of PubMed and HighWire Press for the busy general practitioner

Anne Robinson, Faculty Librarian, Health, Education Services, and Susan Day, Biomedical Library, University of Newcastle, Newcastle, New South Wales

Summary

Medical information on the internet is of variable quality. However, busy doctors can keep up to date with reliable information from readily accessible web sites such as PubMed and HighWire Press. PubMed is part of the National Library of Medicine in the USA. It is a useful system for retrieving clinically relevant search results. HighWire Press has a less sophisticated search engine, but is an excellent source for obtaining the full text of journal articles.

Key words: evidence-based medicine, information services, internet.

(Aust Prescr 2004;27:16–8)

Introduction

Much has been written about the proliferation of medical information on the internet, and the dubious quality of a high percentage of it. However, many sites have been developed to help people searching for quality, peer-reviewed literature. These include the Cochrane Library and the US National Library of Medicine's PubMed, as well as sites offering full-text access to medical journals, such as Stanford University's HighWire Press and freemedicaljournals.com (http://www.freemedicaljournals.com).

PubMed

Two features of PubMed are of special significance to busy practitioners. *Clinical Queries* allows you to perform a complex search on a topic, without having to devise a complex search strategy. The system automatically applies a filter (a pre-formulated search string) to your search, ensuring that you only retrieve the most clinically relevant results.

LinkOut provides links from your search results to the full text of articles on the internet. While some of these may be available at no cost, most are available at a pay-per-view price from the publisher. Supplying credit card details usually allows immediate on-line access at a cost of US$8–35.

How to use PubMed

The following example demonstrates the use of:

- *Clinical Queries* to find citations of articles discussing the effectiveness of clopidogrel in the treatment of heart attack
- *LinkOut* to obtain the text of some of these articles.

Step 1

Go to PubMed at http://www.ncbi.nlm.nih.gov/PubMed/medline.html

Click on *Clinical Queries* under the heading *PubMed Services*, in the blue panel on the left, to get to the following screen. Enter your subject search on this screen.

Step 2

At this point, it is worth noticing the default selections on the screen, and being aware that you may change these to suit your own search requirements.

There are two filters which may be applied to your query:

- *Clinical Queries using Research Methodology Filters* is the default selection. If you use this one, you will also need to select a category (therapy, diagnosis, aetiology or prognosis), as well as an emphasis (sensitivity or specificity).
- *Systematic Reviews*. Select this option if you wish to limit your retrieval to only systematic reviews and meta-analyses for your search topic.

Step 3

Enter your search topic, and click *Go*.

Behind the scenes a pre-formulated complex search string†, based on those developed by Haynes[1], is now applied to the topic you have entered. A summary list of your search results will be displayed, showing authors, title and citation for each article, as well as a link to the article abstract.

† (clopidogrel AND heart attack) AND (randomised controlled trial [PTYP] OR drug therapy [SH] OR therapeutic use [SH:NOEXP] OR random* [WORD])

This particular search retrieves just over 100 articles (this number will change as new articles are constantly being added to the database). If this is more than you have time to sift through, consider:

- changing your selection on the search page to *specificity*, instead of *sensitivity*
- changing your selection on the search page to *Systematic Reviews* instead of *Clinical Queries using Research Methodology Filters*
- making use of the *Limits* option.

Using the *Limits* option

This allows you to narrow down your results even further, according to factors such as age group, gender, publication type and language.

It is not necessary to repeat your search. Simply click on *Limits*, select those you wish to apply, and click *Go*.

Applying the limits of male, middle aged, human, and English language, narrows down the search results to 17 articles.

Using *LinkOut* to obtain the full text of articles

A click on the author's name, or on the abstract icon, will display the abstract of the article. To access the *LinkOut* feature, click on *Links* (either from the summary display, or the abstract display), then click on *LinkOut*.

You will notice that links are provided under the headings *Education, Literature* and *Medical*, with links to articles coming under the *Literature* heading. Some of these may be freely available. Most will be available on a pay-per-view basis. Click on the link, and follow the instructions if you wish to pay by credit card.

LinkOut also provides links to other useful resources, such as on-line tutorials, and consumer health information from reliable sources such as the National Institutes of Health, the American Heart Association, and MEDLINEplus (the patient information site of the National Library of Medicine).

Related Articles provides a link from any one article, to others in the database which have words from the title, abstract, and MeSH terms in common with that article. These are listed in order of relevance, with the given article listed at the top.

If time permits, it is worth doing the online PubMed Tutorial (at http://www.nlm.nih.gov/bsd/pubmed_tutorial/m1001.html) and/or reading an article on searching the medical literature.[2]

HighWire Press

HighWire Press began in early 1995 with the development of the on-line version of the Journal of Biological Chemistry. The journals Science and Proceedings of the National Academy of Sciences soon joined the site. HighWire currently hosts 335 journals, offering varying degrees of full text access. Articles may be available:

- free of charge (British Medical Journal)
- free after a certain time period (Family Practice is free after two years)
- on a pay-per-view basis (you pay to access one article on-line, for a stipulated time period)
- with a site pass (you pay to access any articles from a particular journal, for a stipulated time period).

HighWire's search engine does not match the sophistication offered by PubMed. However, HighWire's search capabilities, coupled with the fact that so much of its content is accessible in one way or another, make it a worthwhile tool for the general practitioner who does not have easy access to a medical library.

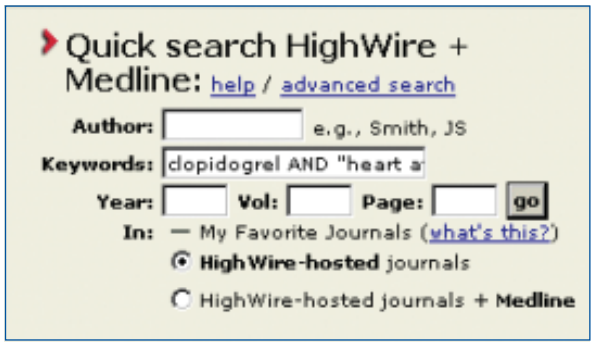
How to use HighWire Press

The following example demonstrates the use of *Quick search* to find citations for articles in which the words clopidogrel and heart attack appear as keywords, and how to obtain the text of some of these articles. There is also an *advanced search* option, and detailed instructions on the use of both search options (on the use of wildcards, stemming, Boolean logic, phrase searching) are available on the screen under *Help* (http://highwire.stanford.edu/help/search_help.dtl#intro).

Step 1

Go to HighWire Press at http://highwire.stanford.edu/

Type clopidogrel AND 'heart attack' in the *Keywords* search field, and click *go*.

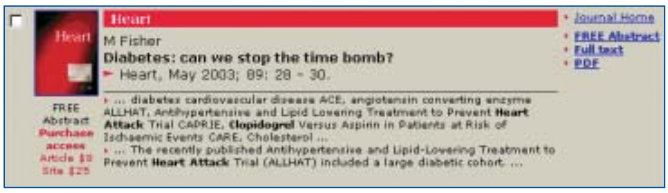


This search retrieved 54 results, of which 37 were available free of charge (as with the PubMed search, these numbers will vary as new articles are added to the database). The difference between these results, and those obtained from the PubMed search, is that they do not necessarily have the clinical focus of those obtained from PubMed's *Clinical Queries* filter. Nevertheless, a quick browse through the results is likely to reveal some useful findings.

Step 2

For those results which show that the article is free, you simply click on either the *Full text* or *PDF* link to obtain the article.

For journals which charge for access, click on either the *Full text* or *PDF* link, and follow the instructions to purchase access to the article.



Access to this particular article may be purchased for US$8. If you decide to supply your credit card details, you will be able to view and print the article immediately from your computer.

Conclusion

PubMed and HighWire Press are both excellent examples of the richness of the internet for the medical profession. As PubMed makes it easy to limit search results to those with a clinical focus and HighWire provides ready on-line access to quality peer-reviewed publications from the convenience of your desktop, these two resources complement each other very well. One should not be used in isolation of the other, but rather as part of a suite of tools which help you to retrieve quality information in this era of evidence-based medicine.

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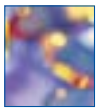
Conflict of interest: none declared



Finding a patient support group

Christopher Newell, Associate Professor of Medical Ethics, University of Tasmania, Hobart

Summary

There are many advantages in referring patients to self-help groups as part of medical care. These groups can be face-to-face and on-line. Some of the questions patients should ask when choosing a patient support organisation include whether there is provision of social and emotional support, what helping mechanisms are offered, and whether it is a disease- or treatment-specific group. It is useful to enquire about the experiences and perceptions of others and the appropriateness of the information provided about the disease or disability. Questions should be asked about fees and charges, sources of funding and whether the organisation is democratically accountable.

Key words: consumers, information services.

(Aust Prescr 2004;27:19–21)

Introduction

> 'For the first time in my life I felt that I was talking with someone in a secret language that only the two of us understood … I had never before met anyone with the same condition. The impact was immense. Here there was someone who could understand and he was not a doctor or a psychologist, and he did not look down upon me from above, or suspiciously at me from the side. He didn't ask me questions to diagnose me and he shared with me openly what he was feeling. Something different, new, right, refreshing. Something that released me from the constant need to keep that terrible secret hidden inside.'[1]

It is in this way that Shula Alperovitch, a mental health consumer, introduces her first tentative steps of encountering and fostering peer support via a self-help organisation. Variously manifest as patient support organisations, consumer organisations or self-help groups, these organisations are supported by a strong body of literature which points to their importance. Indeed, it shows that they not only provide peer support but can optimise health outcomes.[2]

There are two types of organisations. First, there are the face-to-face organisations that often operate around particular illnesses. Secondly, there are an increasing number of on-line self-help groups. These can be of particular assistance to people with rarer conditions, and for people who want to find information on sensitive issues or private concerns that they may not otherwise be prepared to raise with a health professional.[3]

Health professionals may be asked to recommend a self-help group. While the patients will decide which group suits them best, health professionals can provide advice on what questions to ask.

Face-to-face peer support

Many self-help and patient support groups in Australia form at the local level and gradually expand to operate as organisations at the State or Territory level. Some of these organisations have federated at the national level to maximise their lobbying, support and political power. Organisations with a presence across Australia are routinely mentioned in *Australian Prescriber.* However, there are many patient support organisations which may be of significant assistance but they are not present in all States and Territories. In some States these organisations may be easier to locate if they are members of, or affiliated with, umbrella consumer organisations. Some self-help groups may also be associated with charitable foundations.

There are variations in consumer-controlled self-help groups. They include:

- consumer advocacy groups (where the benefit comes from the outward focus on changing health service delivery and the peer interaction is incidental but still immensely supportive)
- support groups facilitated by non-government organisations (which utilise semi-professional facilitators but rely on peer interaction for their effectiveness).

Some groups are now forming national alliances of related conditions or are forming as national groups for rare conditions (e.g. brain tumours) facilitated by increased access to low cost communications via the internet or teleconferencing.

Making contact

There is no easy way of locating patient support organisations, although a search through the phone book and increasingly the world wide web will often yield results. Even small community organisations these days are increasingly supported by State government programs to provide at least a presence on the internet. Sponsorship of organisations or web sites may also be offered by corporate sponsors such as pharmaceutical companies.

There are individual state directories of self-help groups in electronic and paper formats, but the paper copies quickly become out of date. Some organisations are listed in the Therapeutic Guidelines books and the Australian Prescription Products Guide, while MIMS attaches a listing to the CD-ROM version of its drug guide. Links to some organisations are also to be found on the Commonwealth Government's Health*Insite* (www.healthinsite.gov.au). Local councils are a good source of information and often have local directories.

Sadly for rural consumers, many of the state organisations tend to be centred on the capital city. However, contacting the secretariats can still be extremely useful because many organisations have isolated members in rural areas. There is also the organisation Health Consumers of Rural and Remote Australia which can provide guidance (www.ruralhealth.org.au/hcrra/index.html).

Examples of other useful contacts include the Health Consumers' Council of Western Australia (www.hcc-wa.global.net.au), and organisations such as the Collective of Self-Help Groups (http://home.vicnet.net.au/~coshg/) and the Chronic Illness Alliance of Victoria (www.chronicillness.org.au). More specialised contacts include such organisations as Cancer Voices NSW (www.cancervoices.org.au). In Australia a wide variety of self-help organisations with appropriate constitutions geared towards consumer self-help are also members of Consumers' Health Forum of Australia (www.chf.org.au).

On-line self-help groups

Increasingly there is significant activity and development by healthcare consumers on the world wide web.[4] This movement is particularly important with regard to people who have comparatively rare conditions or want the anonymity of the internet.

'On-line groups – self-help and mutual aid groups – found on internet news groups, commercial information networks, and computer bulletin boards are potential resources … because they combine the advantages of self-help and the accessibility of computer networks.'[5]

These on-line groups are important for people who live with chronicity and disability. Searching for these groups can be as simple as using a search engine to trawl the web. However, the questions listed below will be of vital importance in evaluating how useful such on-line contacts are. In addition, it is important to note that while particular protections exist under Australian law with regard to membership of organisations, consumers need to be aware of the fact that Australian laws and conventions (such as consumer protection and privacy) are not necessarily to be found in the global on-line community.

Some questions: making an informed choice

Health professionals may not be aware of the relevant support group for a particular patient, or they may forget to suggest that the patient considers joining a group. In such circumstances, exploring the appropriateness of a choice made independently of a professional can have a vital role in the therapeutic relationship. It is not just a matter of finding an organisation, but also enabling patients and their families to work out whether or not this is the appropriate organisation for them. They should establish whether bias may be introduced into the information given by a sponsor such as a drug company or healthcare provider. It is particularly important that any financial ties or sponsorships which may influence their stance on particular matters such as treatments are known when choosing or evaluating a support group.

Does the organisation provide social and emotional support?

The organisation and its members may provide support or empathy, social support, and the opportunity to explore the fact that 'I am not alone', to express feelings or catharsis, express and develop friendship, and explore 'taboo topics' such as sexuality. Provision of information on the illness and its treatment, for example to dispel mystery or uncertainty, can itself be very emotionally supportive.

What are the origins of the organisation?

For example, it is important to know if a group has been formed by people opposed to a particular treatment, or by researchers trying to recruit a cohort of patients for study.

Is the information about disease/disability reputable and appropriate?

Checking whether or not the organisation is drawing upon reputable healthcare information is vital. Where consumer information is used, such as in qualitative research, about the experience of consumers with a particular condition, has a methodology been used which is open to scrutiny?

Is the organisation democratically accountable?

Checking that the organisation has a constitution which allows participation by members and ensures their rights, including the ability to participate in governance, can be important.

Is there information about funding sources and potential conflict of interest?

The organisation in its publicly available literature (such as an annual report) should make clear where it gets its funding from (including funding for projects). Ask carefully if there are any contractual arrangements with pharmaceutical companies or other healthcare providers, as these arrangements may significantly influence the information provided. The problems include possible bias, and even the possibility of recruitment to a particular trial or treatment to the exclusion of others. Indeed organisations that accept such sponsorship may face constraints in critiquing a particular service or drug.

Does the organisation offer helping mechanisms?

For example, does the organisation provide avenues for problem solving and an exchange of ideas where people can offer specific advice or ask questions? Indeed, does it provide an environment of support where no question about a condition is the 'wrong' question?

Is the organisation disease- or treatment-specific?

While some organisations have developed around particular treatments there is much to be said for suggesting that people take a broader approach to self-help. Organisations revolving around a particular treatment can unnecessarily limit options and information options about other treatments and support.

What are the perceptions of others?

Find out what other people including health professionals (other than members of the management of an organisation) think about that organisation and the contribution it can make. Consumers should be encouraged to talk to a health professional if they think the support organisation is providing misleading or questionable information.

What are the fees and charges?

Informed financial consent is vital. People need to know what they actually get for any membership fees and whether this represents value for money for them. It is important to realise that free or subsidised membership may well reflect corporate sponsorship which may be relevant when considering membership.

Conclusion

Patient support organisations provide significant support which can complement contemporary medical care. There are many advantages in referring patients to self-help groups, but they should ask questions before joining the group. Ask the patients how effective and helpful such organisations are, because many community organisations change over time. Their experience can then inform other patients seeking support.

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Acknowledgement

I acknowledge with gratitude the assistance of Ms H. Hopkins and Mr R. McGowan in researching this article.

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Associate Professor C.J. Newell, AM, is a member of the governing committee of Consumers' Health Forum.

Your questions to the PBAC

Australian Prescriber readers are invited to write in with their questions about decisions of the Pharmaceutical Benefits Advisory Committee. The segment 'Your questions to the PBAC' will publish selected questions from readers, and answers from the Committee itself. Questions may address issues such as regulatory decisions, pharmaceutical benefits listings, withdrawal of a drug from the market and Authority prescriptions.

This exclusive arrangement helps *Australian Prescriber* readers understand how the contents of the Schedule of Pharmaceutical Benefits are determined. The 'yellow book' is published quarterly by the Department of Health and Ageing, and is also available on the internet at www1.health.gov.au/pbs/index.htm. It provides important information for doctors, dentists and pharmacists including a summary of changes to listed items, which medicines are included or excluded from benefit, whether restrictions apply to medicines and how much patients should pay including price premiums for particular brands where applicable.

It may not be possible to reply to all individual questions. The usual editorial controls will apply so that readers' letters and the responses selected by the Editorial Executive Committee will be published in the journal. Letters and responses may be edited before publication.

New drugs

Some of the views expressed in the following notes on newly approved products should be regarded as tentative, as there may have been little experience in Australia of their safety or efficacy. However, the Editorial Committee believes that comments made in good faith at an early stage may still be of value. As a result of fuller experience, initial comments may need to be modified. The Committee is prepared to do this. Before new drugs are prescribed, the Committee believes it is important that full information is obtained either from the manufacturer's approved product information, a drug information centre or some other appropriate source.

Teriparatide

Fortéo (Eli Lilly)

3 mL cartridges containing 250 microgram/mL

Approved indication: osteoporosis

Australian Medicines Handbook section 10.3

Teriparatide is a chain of 34 amino acids in a sequence which is identical to the biologically active section of parathyroid hormone. The molecule is assembled by genetically engineered *Escherichia coli*.

Human parathyroid hormone regulates the concentration of calcium in extracellular fluid. It also regulates bone metabolism and acts on the kidney to increase tubular reabsorption of calcium and phosphate.

Although parathyroid hormone increases the release of calcium from bone, intermittent use stimulates osteoblasts more than osteoclasts. By mimicking this effect of parathyroid hormone, teriparatide aims to stimulate bone formation in patients with osteoporosis.

Patients use a pen injector to inject teriparatide subcutaneously once a day. Each cartridge contains enough teriparatide for one month's treatment. Teriparatide has a short half-life of approximately 60 minutes and is undetectable in the serum within three hours. The serum calcium concentration increases two hours after the injection, but returns to normal after 16–24 hours. Teriparatide is probably eliminated by the same mechanism as parathyroid hormone.

There have been several trials of parathyroid hormone in men and women with osteoporosis.[1] One study involved 1637 postmenopausal women who were treated for a median of 19 months. Compared to patients taking vitamin D and calcium, the women who also took teriparatide had fewer fractures. Vertebral fractures occurred in 5% and non-vertebral fragility fractures in 2.6%, compared to 14% and 5.5% in the placebo group.[2]

Another trial studied 34 postmenopausal women with osteoporosis who were taking hormone replacement therapy. Adding recombinant parathyroid hormone resulted in increased bone density and a reduced number of vertebral fractures.[3] Teriparatide also increases bone density in the lumbar spine of men with primary or hypogonadal osteoporosis.

Many patients with osteoporosis are treated with drugs which reduce bone resorption. A trial has therefore compared teriparatide with alendronate. The 146 postmenopausal women in the trial were treated for a median of 14 months. At the one year point alendronate had increased the bone density of the lumbar spine by 5.9% while teriparatide had increased it by 14.2%. Non-vertebral fractures occurred in 13.7% of the alendronate group and 4.1% of the teriparatide group.[4]

In clinical trials of teriparatide 7.1% of patients stopped treatment because of adverse effects. Common adverse effects include nausea, dizziness, asthenia, arthralgia, pain and reactions at the injection site. Some patients develop postural hypotension following the injection. As teriparatide can increase calcium concentrations caution is needed in patients with urolithiasis.

Teriparatide has been associated with osteosarcoma in rats, so it should not be used for more than 18 months. Until more data are available teriparatide should only be prescribed for patients who have a high risk of fractures and cannot take other treatments for osteoporosis.

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NEW FORMULATION

Amoxycillin trihydrate

Maxamox (Sandoz)

500 mg/5 mL powder for oral suspension in 100 mL bottles

NEW STRENGTHS

Citalopram

Celapram (Alphapharm)

10 mg and 40 mg tablets

Clozapine

Clopine (Mayne Pharma)

50 mg and 200 mg tablets

Conjugated oestrogens and medroxyprogesterone acetate

Premia Low (Wyeth)

tablets containing 0.45 mg conjugated oestrogens/1.5 mg medroxyprogesterone acetate

Oxycodone hydrochloride USP

OxyContin (Mundipharma)

5 mg tablets

NEW PROPRIETARY BRANDS

Cefaclor monohydrate

Aclor (Arrow)

125 mg/mL and 250 mg/mL granules for suspension

Diclofenac sodium

Clonac (Arrow)

50 mg tablets

Isosorbide mononitrate

Arsorb (Arrow)

60 mg tablets

Metoprolol tartrate

Metrol (Arrow)

100 mg tablets

Mirtazepine

Axit (Alphapharm)

30 mg tablets

Answers to self-test questions

1. True
2. False
3. False
4. False
5. False
6. False

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