

## Media coverage of scientific presentations

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**TO THE EDITOR:** The front-page article in the *Sydney Morning Herald* on 7 June this year<sup>1</sup> highlights the problem of premature media coverage of a scientific presentation,<sup>2</sup> potentially causing distress and confusion. Without being subjected to full peer-review and unavailable for analysis in its full published form, such data should not be presented to the public as scientific fact, and should not be sensationalised so as to encourage patients and doctors to change management. A small single-centre observational study is regarded as Level 4 evidence and cannot be used to recommend a change in management. At most, such data might be considered hypothesis-generating and used as the basis for a properly conducted clinical trial.

In a meta-analysis of 70 000 “high risk” patients, antiplatelet therapy, mainly with aspirin, reduced rates of stroke, myocardial infarction and vascular death by 25%.<sup>3</sup> Aspirin also reduced by almost half the rate of graft occlusion after coronary bypass surgery.<sup>4</sup> The press article has confused such patients and may lead to their discontinuing life-saving therapy. It cites Bertouch as stating that 75 mg of aspirin “might be more appropriate”. There are no data, either from the Prince of Wales study or any other, to support the contention that 75 mg of aspirin causes less bleeding than 100 mg or 150 mg. The press release describes the research as a “world-first study”, and Dr Bolin is cited as stating that “we were unaware that really low-dose aspirin had the same risk”. However, as early as 1991, the Swedish Aspirin Low-Dose Trial showed that even 75 mg of aspirin produced more bleeding than placebo ( $P = 0.04$ ).<sup>5</sup>

As a result of the *Sydney Morning Herald* article, patients are asking their doctors to make a judgement on ceasing their aspirin therapy, which might prove fatal, or reducing the dose from 100 or 150 mg to 75 mg, which is not supported by evidence and is not even a dose available in Australia. At a time when it is difficult enough to convince patients to take medication which is of proven benefit, both the press and the research community have a responsibility to the public to avoid recommendations which are not evidence-based and which detract from our efforts to reduce the mortality from Australia’s biggest killer — cardiovascular disease.

5. Swedish Aspirin Low-Dose Trial (SALT) of 75 mg aspirin as secondary prophylaxis after cerebrovascular ischemic events. The SALT Collaborative Group. *Lancet* 1991; 338: 1345-1349. □

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**IN REPLY:** Aroney’s letter raises a number of important issues. The first of these is the question of whether a scientific fact requires the blessing of peer review to become established as such. The corollary of this is whether or not all peer-reviewed facts are necessarily true. The answer to both questions is probably no.

The second issue is how to control a media report, irrespective of whether it is based on a peer-reviewed study. The issue which concerns Aroney is an abstract presentation of the association of gastrointestinal bleeding with aspirin, non-steroidal anti-inflammatory drugs (NSAIDs) and cyclo-oxygenase II (COX-II) inhibitors, the conclusion of which was that, while the last two might be important in their own right, concurrent use of aspirin, even in a small dose, was more closely associated with bleeding risk, particularly if there was a past history of peptic ulceration.<sup>1</sup>

A “meta-analysis” of the media reports, which included both television and radio in addition to the quoted report in the *Sydney Morning Herald*,<sup>2</sup> would have made it clear that the theme of the interviews reaffirmed the relative safety of aspirin in the vast majority of individuals, and highlighted the risk of aspirin use concurrently with NSAIDs and COX-II inhibitors, particularly when there is a history of past ulceration. The fact that the SMH report focused on one aspect of the study was counterbalanced by the others. We do not know how journalistic reporting is controlled.

A primary question is whether or not aspirin is an effective agent for the prevention of cardiovascular disease beyond the management of acute myocardial infarction. More recent literature than that quoted by Aroney is now questioning the overall cardioprotective value of aspirin.<sup>3</sup> This showed that aspirin given as prophylaxis against cardiovascular disease increased the risk of sudden death in every secondary prevention study and left the overall rate of myocardial infarction unchanged.<sup>4</sup> Aspirin consistently failed to reduce overall mortality in every study of long-term prophylaxis after myocardial infarction, and in all but one after stroke.<sup>3</sup> Furthermore, Cleland and colleagues have argued that a series of meta-analyses, which most people have accepted as proof of the efficacy of aspirin, are of doubtful validity.<sup>4</sup> They questioned whether it is appropriate for the medical community to invest so much time and effort in prescribing aspirin and dealing with the adverse consequences of its long-term ingestion to the neglect of other, better proven and apparently more effective therapies such as angiotensin-converting enzyme inhibitors,  $\beta$ -blockers, and statins. At the very least, it can be said that there is

1. Robotham J. Doctors warn: just one tablet of aspirin a day may be enough to do you serious harm. *Sydney Morning Herald* 2002; 7 June: 1.
2. Bertouch J, Lee L, McNeill HP, Bolin T. The impact of cyclo-oxygenase II (COX-II) inhibitors on gastrointestinal (GIT) bleeding. Poster 30. Presented at the combined meeting of the Australian Rheumatology Association and the New Zealand Rheumatology Association. Christchurch, NZ: 28 May 2002. Sydney: Australian Rheumatology Association, 2002.
3. Collaborative overview of randomised trials of antiplatelet therapy — I: Prevention of death, myocardial infarction, and stroke by prolonged antiplatelet therapy in various categories of patients. Antiplatelet Trialists' Collaboration. *BMJ* 1994; 308: 81-106.
4. Galea J, Manche A, Goiti JJ, et al. Omission of aspirin in patients following coronary artery bypass graft surgery. *J Clin Pharm Ther* 1994; 19: 381-386.

controversy in the cardiovascular literature about the benefits of aspirin.

Just as important is the issue of the safety of long-term aspirin use for cardioprotection. A recent multidisciplinary expert statement on NSAIDs concluded that, on current evidence, prophylactic use of aspirin should be reserved for patients with established vascular disease, because in other patients bleeding risks may outweigh cardiovascular benefit.<sup>5</sup> A Danish study showed that 100–150 mg of aspirin daily increased the risk of haematemesis by a factor of 2.6, with no difference in the risk between enteric and non-coated product; when combined with an NSAID the risk was increased by a factor of 5.6.<sup>6</sup> The authors concluded that the bleeding risk may offset some of the benefits of aspirin.

It is no longer appropriate to simply “bury” the adverse gastrointestinal effects of low-dose aspirin in the NSAID side-effect “basket”.<sup>7</sup> It is apparent to us that dogma should not be so enshrined that it prevents the discussion of issues that might helpfully modify that dogma.

1. Bertouch J, Lee L, McNeill HP, Bolin T. The impact of cyclo-oxygenase II (COX-II) inhibitors on gastrointestinal (GIT) bleeding. Poster 30. Presented at the combined meeting of the Australian Rheumatology Association and the New Zealand Rheumatology Association. Christchurch, NZ: 28 May 2002. Sydney: Australian Rheumatology Association, 2002.
2. Robotham J. Doctors warn: just one tablet of aspirin a day may be enough to do you serious harm. *Sydney Morning Herald* 2002; 7 June: 1.
3. Cleland JGF, John J, Houghton T. Does aspirin attenuate the effect of angiotensin-converting enzyme inhibitors in hypertension or heart failure? *Curr Opin Nephrol Hypertens* 2001; 10: 625-631.
4. Cleland JGF. No reduction in cardiovascular risk with NSAIDs — including aspirin? *Lancet* 2002; 359: 92-93.
5. Hawkey CJ, Lanus AI. Doubt and certainty about nonsteroidal anti-inflammatory drugs in the year 2000: a multidisciplinary expert statement. *Am J Med* 2001; 110(1A): 79S-100S.
6. Sorenson HT, Mellemejaer L, Blot WJ, et al. Risk of upper gastrointestinal bleeding associated with the use of low dose aspirin. *Am J Gastroenterol* 2000; 95: 2218-2224.
7. Henry D, Lim L Ly, Rodriguez LAG, et al. Variability in risk of gastrointestinal complications with individual non-steroidal anti-inflammatory drugs: results of a collaborative meta-analysis. *BMJ* 1996; 312: 1563-1566. □

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**IN REPLY:** The letter from Aroney displays some basic misunderstandings of the role of the media in reporting medical issues.

Aroney states that “the press [has] a responsibility ... to avoid recommendations which are not evidence-based and which detract from our efforts to reduce mortality from ... cardiovascular disease.”

A press article does not itself make recommendations when it reports the recommendations of others — an essential distinction. In addition, the press has no responsibility to follow the agenda of the medical profession and its slavish insistence on the dogma of evidence-based medicine. The press owes doctors no more favours than it owes any other sector of the community. The role of the press is to raise and debate issues of public interest in a manner that is balanced and responsible. The news report about aspirin did all of this.<sup>1</sup>

We agree that publication in a peer-reviewed journal may add scientific credibility to research findings and that this may sometimes make them more newsworthy. But our responsibility is to report medical matters of interest to the community, which means we are not limited to peer-reviewed findings. Any substantial fact, observation or opinion relating to medical practice is fair game for a newspaper's attention.

After the findings of Bertouch and colleagues were presented at a conference,<sup>2</sup> they entered the public domain, as did their later comments made to us directly. It was entirely proper to report them.

The fact that the gastrointestinal bleeding study was conducted by two heads of department at a major Sydney teaching hospital was instrumental to our decision to position and headline the report prominently.

These individuals are respected experts in their fields, and they expressed to us serious concern about the degree to which aspirin was implicated in gut haemorrhage. It was that concern which led us to focus on the aspirin findings within the broader study. The news process is always selective and there is no obligation to give equal emphasis to all findings. The magnitude of follow-up by other media confirms the inherent public interest in the topic.

It has previously been suggested that medical journalists are behaving irresponsibly when they step outside the strictures of peer review.<sup>3,4</sup> Yet it is a basic tenet of journalistic ethics that journalists should be independent.<sup>5</sup> Why, then, would we subscribe to the doctrine of evidence-based medicine, with all its flaws?

We, and the community, have every right to be sceptical of the tyranny of peer review when the pharmaceutical industry manifestly uses financial muscle to influence what is studied and what is published.<sup>6</sup> Even the *Medical Journal of Australia* accepts anecdotal findings when it can persuade itself the public interest is involved, recently publishing an eyewitness account of conditions inside an immigration detention centre<sup>7</sup> and defending this on the basis that “our readership is sophisticated enough to interpret the content of such articles.”<sup>8</sup>

*Sydney Morning Herald* readers are also sophisticated. On what basis should they have been denied this pertinent information about a widely used medicine — that doctor still knows best?

1. Robotham J. Doctors warn: just one tablet of aspirin a day may be enough to do you serious harm. *Sydney Morning Herald* 2002; 7 June: 1.
2. Bertouch J, Lee L, McNeill HP, Bolin T. The impact of cyclo-oxygenase II (COX-II) inhibitors on gastrointestinal (GIT) bleeding. Poster 30. Presented at the combined meeting of the Australian Rheumatology Association and the New Zealand Rheumatology Association. Christchurch, NZ: 28 May 2002. Sydney: Australian Rheumatology Association, 2002.
3. Moynihan R, Sweet M. Medicine, the media and monetary interests: the need for transparency and professionalism. *Med J Aust* 2000; 173: 631-634.
4. Bartlett C, Sterne J, Egger M. What is newsworthy? Longitudinal study of the reporting of medical research in two British newspapers. *BMJ* 2002; 325: 81-84.
5. Media, entertainment and arts alliance. <www.alliance.org.au>.
6. Davidoff F, DeAngelis CD, Drazen JM, et al. Sponsorship, authorship, and accountability. *N Engl J Med* 2001; 345: 825-827.
7. Sultan A, O'Sullivan K. Psychological disturbances in asylum seekers held in long term detention: a participant-observer account. *Med J Aust* 2001; 175: 593-596.
8. Van Der Weyden MB, Armstrong RM, Randall HM. Asylum seekers and health-care [letter]. *Med J Aust* 2002; 176: 87. □