

How Media and Medicine Mix: What do we know about quality issues in medical reporting?

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Many people will hear about new medical discoveries for the first time through the popular media. The mass media and the internet play an increasingly crucial role in communicating information about health issues, and informing the public about new research findings and new treatments.^{1,2} When journalists cover medical news well, their reports are accurate and balanced, they provide important contextual information and arguably provide a vital public service, which sets appropriate expectations among consumers and informs the larger medical community. When medical journalism is done poorly it can over-hype or oversimplify an issue, and unnecessarily inflate (or depress) patient demand. Breathless headlines based on mere whiffs of science can drive patients into their physician's offices demanding cures which have only been studied in rodents, let alone approved for human use. Fortunately, there is a growing body of research which is taking stock of the quality issues related to medical news coverage. This article will attempt to examine recent trends in the reporting of medical news in Canada and highlight some of the efforts to improve this reporting.

The quality and comprehensiveness of the coverage of health technologies by the lay media are important topics to study.³ Because the media can influence perceptions of both consumers and health care professionals, it can affect demand, both positively and negatively for health treatments. When medical news reports centre on expensive new treatments, this coverage can have a serious impact on public decision-making, by shaping the public debate around access and coverage relating to those new therapies.

When a newly launched drug costs \$50 per month the question of coverage usually gets minimal airplay. When a new treatment, like biologic treatments for cancer such as trastuzumab for HER-2 positive breast cancer or bevacizumab for colorectal cancer come onto the market at \$40,000-\$50,000 per year the complexity of the story demands but doesn't always generate more nuanced coverage. These diseases may affect many thousands of potential patients, and thus the cost implications and wrenching decisions of access and coverage are not just a side effect of the story, they become the story.

Much medical reporting is driven by organizations, companies, universities and research groups promoting their research and otherwise attempting to get favorable coverage from major media outlets. And this leads to a general tendency to over promote new treatments often at the expense of more measured coverage. In one study in 2003, analyzing the content of 1,203 American newspapers that year, researchers found that twenty percent of all examined newspaper articles about common neurologic conditions had medical errors or exaggerations. They concluded that: overstating treatment effectiveness was the most common exaggeration.⁴

Overstating treatment effectiveness in media coverage can lead to excruciating dilemmas. In 2005, the world witnessed one such dilemma played out on the front pages of the world's major media outlets. A number of new studies of trastuzumab (Herceptin) were announced in the spring of 2005 claiming that a breakthrough in breast cancer treatments was now available

for women with breast cancer who express the HER-2 gene.⁵ The initial reportage focusing on the benefits of the treatment, was soon followed, in Canada, by stories focusing on access to the treatment—Herceptin's cost (estimated at \$35,000 to \$45,000) and the dilemmas faced by physicians and patients who, for a variety of factors, were not able to access it. In dramatic and sometimes heart-rendering coverage, the dozens of accompanying media stories over the next six months created intense controversy. This coverage naturally pressured provincial health plans and cancer agencies to speed up access to this therapy. And while many governments were waiting for more robust reviews of the science, those reviews hardly mattered as the mounting public furor forced provinces to relent; to cover the treatments, and swallow the costs. In July 2005, BC was the first province to cover Herceptin, ironically one month before the drug's maker Genentech issued a warning of significant cardiac toxicity related to Herceptin.⁶

The quality and completeness of initial news coverage of research is crucial, as preliminary reports can set the tone for subsequent news stories. One recent example of the reporting of important new research relates to the reporting of the groundbreaking Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial (ALLHAT).⁷ An unmatched trial for size, rigor, and potential clinical and economic impact, researchers found that 98% (47 of 48) North American newspaper stories on ALLHAT accurately captured a single key message: that diuretics, calcium channel blockers and ACE inhibitors are equivalent in preventing death from heart failure and nonfatal heart attacks. Only 54% (26/48) of stories reported the increased risk of stroke with ACE-Inhibitors, and only 48% (23/48) of stories conveyed the increased risk of heart failure with CCBs (both compared to diuretics). If half the ALLHAT newspaper reports in North America failed to disclose two important health outcomes related to these widely used classes of antihypertensives one could only hypothesize at the enormous public health and health system repercussions such incompleteness has produced and will continue to produce.

In research around the media coverage of health treatments there are some common themes. Many stories lack complete information, especially concerning the quality of evidence, and selective reports the benefits, harms and costs of treatment. Studies in several countries have found that media stories often omitted the financial ties between study groups or experts and the manufacturers of the treatment in question. Knowing these ties is vital to having proper context to a new study. Research in this area has led to recent calls for a more direct and honest reporting of the results of trials on the effects of medicinal drugs.⁸

Sometimes news coverage of drug treatments can swing too far the other way, overemphasizing the negative and unnecessarily alarming consumers. This too can possibly engender irrational drug use. A most telling recent example was in the reporting and subsequent market withdrawal of phenylpropanolamine an additive in dozens of cough preparations and appetite suppressants. The BMJ reported that the "risk of haemorrhagic stroke was found to be as much as 15 times higher in those who had taken appetite suppressants in the three days before the stroke."⁹ What the medical journals fail to say, and the media then fails to report, is that the absolute risk of stroke in those women is somewhere between one in 3.26 million and one in 107,000¹⁰.

The issue of consumer awareness of medical technologies and treatments, as translated by media outlets is a very real policy concern and of high interest to drug plan managers and

provincial health ministries in Canada. The drive for rapid uptake of often expensive and sometimes not well-studied medical technology and drugs no doubt increases the pressure on public health budgets as the case of Herceptin illustrates.

Inaccurate reporting is a concern to health professionals as well, and a 1999 survey found that Canadian physicians think journalists should be doing a better job reporting on health issues. A poll of 250 general practitioners, found that 66% believe the news media are not delivering accurate coverage of medical health information. At the same time, physicians believe health-related news is often very beneficial because it sometimes prompts patients to ask important questions and otherwise learn more about their health¹¹.

Of the barriers to good quality reporting it is worth examining the perspective of those who work within the field of medical journalism. Andre Picard, a leading medical reporter at the Globe and Mail, elucidates some key problems with quality medical reporting: a lack of skepticism, weak evidence to support health claims, the influence of commercialism and use of single sources. He points to a newsroom that often has no full-time health journalists, lacks sufficient space to cover an issue properly, and untrained journalists who tend to see things in black & white, rely on jingoism or obsess with new technology.¹²

A major and sustained improvement in reporting standards starts with improving the education of journalists, as well as basic education for the public on what qualities to look for in news report about new treatments. Luckily there has been a recent surge in interest in researching, monitoring and evaluating medical coverage. In the last three years three individual services, Media Doctor Australia (www.mediadoctor.org), Media Doctor Canada¹³ (www.mediadoctor.ca) and Health News Reviews (www.healthnewsreview.org) in the United States have used teams of experts to scan, review and post ratings of hundreds of health treatment stories according to similar criteria.

Better medical journalism will no doubt require changes to the culture of media companies and a change in the behavior of companies and researchers who have a vested interest in generating positive coverage. There is some promising signs in this direction from CIHR, which is planning to initiate post-doctoral support for researchers who wish to study the role of the media in shaping the health debate and what factors influence this role. The public, researchers, and healthcare professionals should applaud such efforts in the hope that it can make a positive and lasting contribution to healthier public debate on what affects all of our health.

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- 5 The 2005 ASCO conference held May 13-17, 2005 in Orlando, Florida presented the results of a combined analysis of two NCI sponsored trials of Herceptin® (trastuzumab) added to chemotherapy for HER2-positive tumors.
- 6 Genentech Biotechnology, Dear Healthcare Provider letter, August 2005 <http://www.gene.com/gene/products/information/pdf/herceptin-ddl.pdf>
- 7 Cassels, A. Nutland, K. Wright, J. (Abstract) ALLHAT in the news: How well did newspapers cover the world's most important antihypertensive trial? Centre for Health Services and Policy Research conference titled: Toward a National Pharmaceuticals Strategy, Vancouver Feb 9-10, 2006
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- 12 Picard A. (2005) How can we improve medical reporting? Let me count the ways. *International Journal of Health Services*. 35(3):603-605.
- 13 Note: Media Doctor Canada was started by Alan Cassels, the author of this paper.