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Media hype of medical news

Does MMR vaccine cause autism? Do nonsteroidal antiinflammatory drugs prevent Alzheimer's disease? Can lasers really be used to treat acne? Every day the lay media exaggerate medical advances and health scares out of all proportion.

Media treatment of 'medical advances'. Reports of medical stories by the lay media are not always disinterested. Institutional or commercial lobbies often see it that the benefits of new drugs or technologies are overestimated while their risks are minimised.

Since 2000, UK citizens have been able to seek an impartial opinion on "medical innovations" that regularly hit the headlines of the national press.

The National Electronic Library for Health (NeLH), a documentary resource centre funded by the National Health Service (NHS) and intended primarily for British health professionals, can also be accessed freely by members of the public. NeLH asked the Centre for Reviews and Dissemination (CRD, www.york.ac.uk/inst/crd), a public body specialising in medical evaluation, to systematically monitor the British press (1).

The CRD team examines headlines on medical advances in ten UK national dailies (Daily Express, Daily Mail, Daily Mirror, Daily Star, Daily Telegraph, Financial Times, The Guardian, The Independent, The Sun and The Times).

Each week it critically appraises one of the subjects covered by the press (a).

These appraisals are placed online a few days after the stories hit the news, on the NeLH website's welcome page (<http://www.nelh.nhs.uk>, "Hitting the Headlines") (b).

A critical appraisal of researchers' and journalists' work. The CRD reviewers do not simply comment on how the journalists in question covered the information. Trained in critically appraising the medical literature, they also examine who conducted and funded the research, the quality of the underlying scientific data, and the credibility of the researchers' interpretations and conclusions. CRD reports also include a reference list including articles in the lay press, medical journals and other sources of scientific information, and any systematic review articles.

Reframing information in context. In some cases the CRD team focuses on the origin of the information picked up by the journalists in question. When two dailies announced that docetaxel could save the lives of 500 to 750 women with early-stage breast cancer, "Hitting the Headlines" pointed out that this claim was based solely on a conference abstract containing interim data from an ongoing clinical trial, of undetermined methodological quality, including mainly women with metastatic breast cancer (2).

When a press article is particularly hyped up, CRD corrects the information immediately. For example, a claim by a daily paper that lithium can halt and even cure Alzheimer's disease was immediately denied by the CRD team; the underlying scientific data came from laboratory experiments on the fruit fly *Drosophila*... (3).

"Hitting the Headlines" also intervenes when journalists correctly report the results of a study but fail to point out its limitations.

In January 2004, for example, six British dailies announced that X-rays emitted during diagnostic procedures caused

about 700 cancers each year in the United Kingdom (4). The source was an article published in *The Lancet*, whose summary mentioned an estimation that 700 cases of cancer could be caused annually, based on a theoretical calculation of the risk of cancer after X-ray exposure, based mainly on studies of Japanese atomic bomb survivors. "Hitting the Headlines" underlined the fact that the authors themselves had admitted that the data were theoretical and uncertain (4).

Much needed in France and elsewhere. "Hitting the Headlines" serves as a basis for discussions between health care professionals and their patients, offering background information and placing claimed benefits and dangers in their proper perspective.

The United Kingdom and Australia (www.mediadoctor.org) are among the few countries to have launched such a service aimed at the public. An independent initiative of this type would be more than welcome elsewhere, notably in France.

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a- The analyses focus on newspaper articles that: 1) inform the public of the health effects of "new" drugs, surgical techniques, screening or diagnostic tests, and prevention campaigns; 2) clearly quote the source of the scientific information on which the article is based (medical journal, conference presentation). Priority is given to articles concerning the largest number of people and to those appearing simultaneously in several dailies.

b- Archives comprising several hundred critical reviews are available online at <http://www.nelh.nhs.uk/hth/files.asp>

1- Hitting the Headlines "What's this feature?". Website <http://www.nelh.nhs.uk/hth/taxotere.asp> consulted on 29 July 2004.

2- Hitting the Headlines "Taxotere - a 'great breakthrough' for women with breast cancer". Website <http://www.nelh.nhs.uk/hth/taxotere.asp> consulted on 29 July 2004.

3- Hitting the Headlines "Lithium for Alzheimer's disease". Website <http://www.nelh.nhs.uk/hth/lithium.asp> consulted on 29 July 2004.

4- Hitting the Headlines "Risk estimates of cancer from diagnostic X-rays". Website <http://www.nelh.nhs.uk/hth/cancerxray.asp> consulted on 29 July 2004.

