the antivivisection programmes, the brain death episode and the side effects of whooping cough vaccination. In many cases the text was not too biased but, as Dr Ian Munro (*Lancet*) pointed out, it was the headline which caused the maximum damage. Mr Bedford admitted that it was virtually impossible to control last-minute changes of headlines by subeditors. One participant considered that good behaviour was probably not consistent with a free press, but Dr Andrew Herxheimer (*Drug and Therapeutics Bulletin*) suggested that two prizes might be given each year, a bouquet for the best example of medical reporting and a wooden spoon for the worst!

In summing up the Chairman referred to a recent meeting in Salzburg on a similar subject, when a scientific expert had quoted, 'I fear what I do not understand'. The lay public feared medicine because the balance of risk to benefit was never adequately explained, and the medical fraternity feared the media and did not understand its diffuse organization. There was no likelihood of improvement without major effort. Nevertheless, recognition of the need for improvement to prevent misrepresentation and to avoid repeated crises demanded some positive action by all medical bodies, including the Conference of Presidents of the Royal Colleges, the Pharmaceutical Society of Great Britain, The Association of the British Pharmaceutical Industry and even the DHSS. The action most likely to produce benefit appeared to be a well publicized and constantly available panel of speakers, possibly based on the BMA regional and central information service, and aiming at regular dialogue with the media. It was therefore agreed that the Forum should seek early contact with the Health Education Council and also draw up a report for consideration by the Conference of College Presidents.

D M BURLEY
Vice-Chairman
B W CROMIE
Immediate Past-Chairman
Medico-Pharmaceutical Forum, London

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Letters to the Editor

Data on lung cancer in radiation workers

From Dr Irwin D J Bross, Director of Biostatistics and Ms Deborah L Driscoll
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Buffalo, NY 14263, USA

Sir, The letter from Drs Rinsky and Landrigan (April *Journal*, p 324) presenting the position of a US agency (National Institute of Occupational Safety and Health: NIOSH) omits several key historical facts. The study was mandated by a Congressional subcommittee that had been hearing weeks of testimony (Serial No. 95–179) on the cover-up of low-level radiation hazards by federal agencies. Not only did the Congress call for a study to confirm or deny the original Najarian report (Najarian & Colton 1978), but it set up an Oversight Committee to avoid a cover-up. Dr Bross and other scientists who testified at the Congressional hearing were originally named to the Oversight Committee. Dr Bross was the only biostatistician.

Even before the first meeting of the Oversight Committee, NIOSH wrote a report which found no hazards at the Portsmouth Naval Shipyard (PNS). After Dr Bross pointed out the shortcomings of this study, the report was hastily withdrawn. The cohort follow-up study described in the letter from Rinsky & Landrigan was set up in its place.

In mid-1980, NIOSH sent the Oversight Committee a first draft of its cohort study (Rinsky *et al.* 1980) which was heavily criticized by Dr Bross and other members. Nevertheless, without the knowledge of the Oversight Committee, NIOSH proceeded to publish a version of this report in *The Lancet* of 31 January 1981 which concluded that: 'Finally, in PNS radiation workers we found no positive dosage response relationship between ionizing radiation dose and mortality for any cause reported' (Rinsky *et al.* 1981).

As came to light at a belated meeting of the Oversight Committee on 17 March 1981, this 'conclusion' had been reached before CDC/NIOSH had carried out a single statistical analysis of the dosage-response relationship for

any cause of death. Indeed, the consultants had not even seen the dosage-response data for any causes other than leukaemia and related diseases. These dosage-response data were subsequently obtained by the threat of a Freedom of Information Act lawsuit.

No competent biostatistician or epidemiologist who was analysing this PNS data would have 'countless thousands of permutations available to them'. Lung cancer and leukaemia are among the few radiogenic causes of death that are named in the 1981 *Lancet* paper. It is well known that there is a 15-year latent period for lung cancer before increased risks are detectable. Finally, lung cancer is one of the few radiogenic causes of death in the PNS data where (after a 15-year latent period) the series size is sufficiently large to have much chance of detecting a radiogenic effect. So it is hardly surprising that the *first* table that Bross & Driscoll (1981) analysed was the dose-latency table for lung cancer.

The point, of course, is that if NIOSH had taken the trouble to do valid statistical dosage-response analyses (taking account of latent period) for the PNS causes of death, they could hardly have missed the relationship for lung cancer, and they could not have published the misleading report in *The Lancet*. Indeed, when they later carried out the analyses, they found some other interesting cause-of-death relationships (that have never been reported).

Moreover, NIOSH has just completed (December 1982) a draft report on the case-control study which was carried out to confirm or deny our lung cancer findings. Not only does this new study confirm our findings (Bross & Driscoll 1981), as well as the original report of excess cancer at PNS that Najarian & Colton published in 1978, but it also contains a major new scientific finding. What we find is a strong synergism with chemicals (asbestos, etc.) at levels of radiation that are considered to be very low. Thus the synergism occurs with *lifetime* badge dose exposures that are generally less than the 5 rem which is permitted *annually* by the Nuclear Regulatory Commission.

Unfortunately, once again through inadequate statistical analysis, NIOSH has in their latest draft report again reached a negative conclusion on strongly positive data.

British readers should realize that NIOSH reports and those of other US agencies in the interagency task force on low-level radiation hazards should be read as policy statements and not as scientific papers.

Sincerely

IRWIN D J BROSS
DEBORAH L DRISCOLL

18 February 1983

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Psychosocial function of accident and emergency departments

From Professor J P Watson
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Guy's Hospital Medical School, London

Dear Sir, I read with interest the paper by Dr Davison and colleagues entitled 'Use and misuse of an accident and emergency department in the East End of London' (January *Journal*, p 37). Some 20 years ago I studied a similar department in another London teaching hospital (1969, *Lancet* i, 877–879) and showed then that a large proportion of the attenders were suffering from a psychosocial problem rather than an acute traumatic one. Subsequent plans concerning casualty departments have tended to assume that the accident and emergency department is solely a surgical department and that any non-surgical or non-acute medical cases are somehow inappropriately attending. It seems to me that those who hold this view are almost certain to be unhappy working in inner London accident and emergency departments, for these traditionally serve a psychosocial function as well as a medical and surgical one.

The way to deal with this is to provide sufficient psychiatric and social work expertise in the accident and emergency department to deal with those cases which will inevitably arise which need such interventions, leaving the skilled medical and surgical personnel to deal with the patients whom they are best equipped to treat. It is when the surgeon's expectations are confounded by having to deal with a stream of patients best dealt with by other sorts of colleague that dissatisfaction arises; but so long as inner cities retain their present structure, there will always be the need for psychosocial attendances and treatments at accident and emergency departments.

Yours sincerely

J P WATSON

7 February 1983