

need rather than cause, but political reality calls for something less. The best model currently available is the Swedish system, where the bodies responsible for the hospitals fund a scheme for compensating those injured by medical treatment and the drug companies fund one for those injured by drugs.^{4,5} The scheme is not perfect: some people who are injured do not get compensated, and some do not get as much as they might have done if they had pursued their case through the courts. But many more people get compensated than did before the scheme was introduced. The same happened in New Zealand.⁶

Should doctors then keep plugging away at government to consider a no fault scheme for Britain? They should. But perhaps, too, they should do more and seize the initiative, taking the wind from the sails of the overblown campaign of the Citizen Action Compensation Campaign. Could not doctors, defence societies, health authorities, and drug companies get together with an insurance company and simply start a no fault scheme? Is there any need to wait for government?

RICHARD SMITH

Assistant editor, *BMJ*

- 1 Miles DH. Medical insurance feasibility study. *West J Med* 1978;128:360-5.
- 2 Royal Commission of Inquiry. *Compensation for personal injury in New Zealand*. Wellington: New Zealand Government, 1967.
- 3 Halley MM. The committee on professional liability. *American College of Surgeons Bulletin* 1988;73:61-2.
- 4 Rosenthal M. *Dealing with medical malpractice: the British and Swedish experience*. London: Tavistock, 1987.
- 5 Brahmans D. The Swedish medical insurance schemes: the way ahead for the United Kingdom? *Lancet* 1988;i:43-7.
- 6 Smith R. The world's best system of compensating injury? *Br Med J* 1982;284:1243-5.

New lessons from the atomic bomb survivors

Britain officially accepts that action must be taken on the evidence from Japan that more cancers than expected have appeared recently in survivors of the atomic bomb and that the doses of radiation they received were smaller than was once thought. The excess cancers are appearing after latent periods approaching 40 years, and the earlier tentative dosimetry of 1965 has been replaced with the improved dosimetry of 1986. Together they predict greater risks from radiation.

The National Radiological Protection board has issued new guidance on applying protection standards and has recommended that individual radiation workers should not be exposed to more than an average of 15 mSv a year.¹ This average is less than one third of the current limit for effective dose equivalent in one year—50 mSv.

The statement from the board will affect radiation work in hospitals, but the extent of the effect will depend on the interaction of several influences. The International Commission on Radiological Protection has not yet recommended change to the present system² although it accepts that the new evidence increases the predicted risk from radiation.³

Thus in balancing risks and benefits to patients the scales have been tipped against x rays and radioisotopes. Additional pressure will be exerted to reduce radiation dose, and when this cannot be done the pressure may lead to an increased need to justify the medical benefits. There will also be

pressure on staff and from staff who are radiation workers to reduce further their already low occupational doses.

In due course the International Commission on Radiological Protection will make its own recommendations, but in the meantime the prompt National Radiological Protection Board recommendations, although they cannot change the legal dose limit, will override that limit. The dose limit has two purposes. Firstly, it ensures adequate protection for even the most highly exposed individuals. All industries have workers at risk and the average risk of fatalities in industries generally regarded as safe has been used to judge the social acceptability of the risk of fatal cancer from radiation in the nuclear industry. The second purpose of the dose limit is to set the scale of predicted radiation risk so that the average is no higher than that in other safe industries. The International Commission on Radiological Protection intends that the average dose should be one tenth of the dose limit.

The distinction between concern for the individual and concern for the average is highlighted by the National Radiological Protection Board's new recommendation to restore acceptability of risk for highly exposed individuals. The time average of 15 mSv a year will affect the work (and perhaps the jobs) of radiation workers currently getting higher doses while reducing their predicted risk. The recommendation may have much less effect in reducing the average radiation dose to workers, although the predicted risk from this average dose has also risen. Whether this is important or not will depend on further work by the International Commission on Radiological Protection and others on whether low radiation doses to workers carry proportionately less risk of cancer than the much higher doses suffered by the inhabitants of Hiroshima and Nagasaki.

The final arbiter of risk to workers must be evidence from worker populations themselves, and there is no evidence that by itself shows convincingly an excess of cancer among radiation workers exposed to current typical occupational doses. Such workers commonly have an incidence of cancer below that of the general population. The effects of lowering the maximum lifetime dose to workers to within one order of magnitude of average natural background radiation may also mean that the actual risks are too small ever to be measured or shown.

J STEWART ORR

Emeritus Professor of Medical Physics,
Royal Postgraduate Medical School,
London W12 0HS

- 1 National Radiological Protection Board. *Interim guidance on the implications of recent revisions of risk estimates and the ICRP 1987 Coma statement*. London: National Radiological Protection Board, 1987. (NRPB GS9-ISBN 0 85951 293 2.)
- 2 International Commission on Radiological Protection. *Recommendations of the Commission*. Ann ICRP 1977;1:No 3. (ICRP Publication 26.)
- 3 International Commission on Radiological Protection. *Statement from the 1987 Coma meeting*. *Radiological Protection Bulletin* 1987; No 86 (suppl).

Correction

Disciplining doctors: the need for better methods

In the last sentence of the third paragraph of "Disciplining doctors: the need for better methods" by Dr Malcolm Forsythe (21 May, p 1421) the word "professional" was used when "personal" was meant. The sentence should have read: "Furthermore, after legal procedures have been followed so carefully during the investigation it seems extraordinary that the appeal is heard by a panel without a legally qualified chairman and composed mainly of professional members, even when the practitioner has been dismissed for personal misconduct."