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Doctors and the bomb

The publication this week of the report¹ on nuclear war by the BMA board of science and education sets a final, authoritative seal on the scientific consensus on the medical implications of nuclear conflict. Doctors and physicists in the United States, the Soviet Union, and Britain are agreed that the medical services would have no hope of coping with the casualties.^{2 3} The survivors of a nuclear attack could not expect any treatment for their burns, their injuries, their infections, or their radiation sickness; and they would probably have to face serious shortages or total lack of food, water, and electric power. In the words of Nikita Khrushchev, "the living would envy the dead."

The BMA board of science's report (which will be debated at this year's annual representative meeting) is based on expert evidence and is well referenced. Anyone wanting to challenge its main conclusions (see p 910) will need substantial grounds for doing so. On some issues, necessarily, the conclusions are based on opinions. Almost every expert agreed, however, that once nuclear weapons were used in Europe the scale of the conflict would rapidly grow to a massive exchange of virtually all available warheads.

Britain is the most vulnerable nuclear target in the world with its combination of high population density and multiple military installations close to centres of population. Most experts put the weight of nuclear warheads likely to be exploded on and over Britain in a major conflict at around 200 megatons. A one megaton bomb exploded over London in daytime would leave 650 000 casualties with major burns—far more than the total of 136 000 acute beds in every NHS hospital in England and Wales. The conclusion is irrefutable: a single bomb of this type would overwhelm the medical services. The likely attack—200 or more such bombs exploded simultaneously over the whole country—would leave an unbridgeable gap between the millions of casualties (and tens of millions of dead) and the few surviving doctors with serviceable hospitals.

In realistic terms, therefore, no rational plans can be made for coping with the medical consequences of nuclear attack. What advice can doctors give to citizens who wish to maximise

their chances of survival? The report agrees with the government in ruling out mass evacuation—on the grounds that no part of the United Kingdom is that much safer than any other and that evacuation is, in any case, socially and economically disruptive. It has little faith, however, in the shelters advocated by the government. These might improve the survival chances for some people in the short term, but the overwhelming problems of infection, bacterial contamination of water, and the scarcity of food and fuel would still remain to be faced. "Most of the government's civil defence planning," says the report, "relates either to conventional warfare or to small isolated nuclear explosions . . . we doubt that the organisation and management implicit in the government's plans would prove to be effective."

The report makes few judgments outside the medical frame of reference, but it does reject the belief, found in some "survival" groups, that the aftermath of nuclear war would be a return to a rural civilisation of two centuries ago. We lack the skills, the technologies, and the resources for such a society; suddenly cut off from supplies of water, food, fossil fuels, and electric power, survivors would be exposed to the effects of cold, malnutrition, and infection with no medical services.

Doctors seem likely to respond to this bleak picture by denial (I am too busy to bother with all that and will go on with my daily work); by emigrating to the southern hemisphere (Nevil Shute's *On the Beach* may have got it wrong: little fallout crosses the equator); or by campaigning in the political arena. Each individual will make his or her own choice—but no one can now say they have been left in doubt of the consequences should our society mishandle the challenge. The rational medical response to the threat of nuclear war is to concentrate on prevention.

¹ British Medical Association. *Report of the Board of Science and Education inquiry into the medical effects of nuclear war*. London: British Medical Association, 1983.

² Anonymous. The final epidemic. *Br Med J* 1982;284:1140-1.

³ Chivian E, Chivian S, Lifton RJ, Mach JE, eds. *Last aid: the medical dimensions of nuclear war*. San Francisco: W H Freeman, 1983.