

tigmine tablets to take before exposure and autoinjection devices to allow the rapid administration of atropine, oxime, and diazepam after exposure.

Should members of the armed forces fall victim to exposure from chemical weapons immediate treatment will be provided by the armed forces medical services. Before evacuation to the United Kingdom all casualties will have been decontaminated and stabilised, so that doctors in the United Kingdom are likely to be concerned mainly with the late effects of exposure. Burns surgeons, dermatologists, respiratory physicians, and ophthalmologists are likely to be most heavily concerned with victims of mustard gas, whereas clinical toxicologists, general physicians, neurologists, and anaesthetists are likely to be concerned with the victims of nerve agents, whose treatment may be prolonged.

Fuller information on management is available,^{1,3} and up to date advice will be available to doctors from both the Poisons Information Services and the Department of Health, which will also be monitoring any cases.

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- 1 Beswick FW, Maynard RL. Poisoning in conflict. In: Weatherall DJ, Ledingham JGG, Warrell DA, eds. *Oxford textbook of medicine*. Vol 1. 2nd ed. Oxford: Oxford University Press, 1987:6,59-6,65.
- 2 Ministry of Defence. *Medical manual of defence against chemical agents*. London: HMSO, 1987. (JSP312.)
- 3 Goodman LS, Gilman A, eds. *Goodman and Gilman's the pharmacological basis of therapeutics*. London: Ballière Tindall, 1987.

The NHS prepares for war

There should be lessons for peacetime

As the journal goes to press the possibility of war in the Gulf comes ever closer. The Department of Health has drawn up plans for treating casualties in the NHS that have been widely leaked to the press, but nobody knows exactly what load will be placed on the service.

Britain has 30 000 troops in the Gulf, and the plans assume that the NHS will be dealing almost entirely with British casualties. From the moment that war seems inevitable all regional health authorities will be put on alert. Arrangements have been made to fly casualties to 22 different airports around the country. The most seriously injured casualties will be kept in the Gulf for up to four days, but those able to withstand a delay of more than 12 hours in receiving treatment will be flown back to Britain. Depending on developments in the war, NHS hospitals may have to start taking casualties from the second day. They would be allocated to regions by turn, and some regions might receive more than one flight load of casualties in a day. After five days the more seriously injured patients who had been held in the Gulf would begin to arrive. The Ministry of Defence currently does not envisage that fighting will last for more than five days. The load on the NHS might, however, be heavier than the Ministry of Defence is currently predicting, and William Waldegrave, Secretary of State for Health, has said that he will ask the Treasury for more money if necessary.

What should the doctors, nurses, and managers who have been charged with the local organisation of the NHS response

do? What effect will our actions have on the normal work of the health service, and will we be able to cope? If diplomacy prevails will our efforts have been wasted or are there lessons for peacetime emergency medicine?

Much has been learnt already from civilian major incidents. Communications and the command structure and coordination across professional and geographical boundaries are recognised as essential components of an efficient plan. The response to last week's train crash at Cannon Street station in London clearly showed the value of a well rehearsed major accident procedure.

In contrast, our experience of war surgery is limited. Whereas most of the commuters into Cannon Street had sustained minor trauma, we can expect many more major injuries from armed conflict. Military surgeons plan to resuscitate and stabilise those with major trunk injuries and to decontaminate any victims of chemical weapons in the war theatre. The on site triage and staged evacuation through military facilities should prevent a rapid accumulation of critically injured patients in the NHS, but there could be a heavy load of postoperative complications, including renal problems.

Limb injuries and burns will present a bigger problem to the NHS. Initial surgery in the Gulf will be limited to extensive debridement. It may not be possible to apply external fixators to compound fractures with great precision. Temporary shunts may be used for vascular injuries. Those with burns over 15-40% of their body surface area will be flown back to the United Kingdom; some can be expected to have respiratory difficulties. Psychiatric problems may occur in all these patients as well as in the uninjured.

The problem for the NHS is therefore different from that encountered in a civilian incident. There will be little need for heroic lifesaving operations. The major burden will be time consuming reconstructive surgery, intensive care, high dependency nursing, and psychiatric treatment.

Plans for the reception of these casualties are well developed. Regional control centres will be responsible for transport to designated hospitals after triage at the local airport. Some hospitals can expect to receive many patients; others may have a support role. All can expect to be involved.

A comprehensive communication network has already been established. Those specialties most likely to be directly involved have been asked to identify their operative and staff requirements. Clearly, plans must be flexible, but this should not be an excuse for lethargy. Policies for bed evacuation, equipment supply, and staff call out must be established and held in readiness.

These preparations should not disrupt normal NHS work. If war is declared elective work will be curtailed and there may be some temporary redistribution of civilian emergencies, but the overall effect on the running of the health service should be minimal. The readiness of military hospitals to take back casualties as quickly as possible will encourage a rapid return to normal in the NHS.

Whatever the outcome of continued international negotiations, these preparations will have increased our understanding of the central issues in major incident planning and the problems inherent in the multidisciplinary response required to treat seriously injured patients. Let us hope that diplomacy does prevail and that these are the only benefits.

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