
TRAUMA

Major disaster management in chemical warfare

G. Betts-Symonds

A disaster is internationally defined as: a catastrophic event which, relative to the manpower and resources available, overwhelms a healthcare facility and usually occurs in a short period of time¹.

War produces such events following every major engagement, resulting in continuous streams of casualties with injuries reflecting the type of campaign being fought and weapons used.

Chemical weapons are designed more to injure than to kill, as has been demonstrated in conflicts that have involved the use of such weapons where mortality has been 3–5%. However, the use of such weapons when overlaid on conventional injury cause added medical problems along with a massive tactical contamination problem. It is therefore essential that disaster planning and training takes account of these hazards in areas where such a threat exists, in order to save the maximum number of lives and prevent secondary casualties among hospital and rescue staff.

The principles outlined in this paper apply equally well to civilian disasters involving the many hazardous materials of industry being transported daily on roads, railways and in the air.

This paper will give an overview of the nature of chemical weapons and of some of the medical/tactical problems when disaster involves chemical warfare agents.

THE NATURE OF CHEMICAL WARFARE AGENTS

There are numerous chemical weapons in the military arsenals of the civilized world, but these can be divided into three groups:

- Vesicants

- Nerve agents
- Blood agents

The limited military experience with the use of such weapons in warfare has shown that the mortality rate is 3–5% yet the percentage of casualties needing prolonged medical care has been consistently high. From a