AMMA JOURNAL VOL 8 ISSUE 1 JUNE 1999 Abstract from the Literature

by Andy Robertson

Henderson DA. The looming threat of bioterrorism. Science 1999 Feb 26; 283(5406):127-82

Biological weapons have recently attracted the attention and the resources of the nation. Discerning the nature of the threat of bioweapons as well as appropriate responses to them requires greater attention to the biological characteristics of these instruments of war and terror. The dominant paradigm of a weapon as a nuclear device that explodes or a chemical cloud that is set adrift leaves us ill- equipped conceptually and practically to assess and thus to prevent the potentially devastating effects of bioterrorism. Strengthening the public health and infectious disease infrastructure is an effective step toward averting the suffering that could be wrought by a terrorist's use of a biological agent.

Atlas RM. The medical threat of biological weapons. Crit Rev Microbiol 1998; 24(3):157-68

There is a heightened threat of biological weapons being used for biological warfare or bioterrorism. Many of the microorganisms and toxins that may be used as such biological weapons can easily be acquired and mass-produced. Dissemination of aerosols of these biological agents can produce mass casualties. If used by a terrorist they may overwhelm our current public health system. Some biological agents, such as Bacillus anthracis (anthrax) and botulinum toxin, are considered far more likely than others to be used as biological weapons; smallpox virus was apparently produced in mass quantities by the former Soviet Union and may also be a serious threat. The release of such agents could go undetected for several hours or days and would be followed by mass illnesses and a first line of response by the public health community. Rapid epidemiological investigation to identify the nature of the disease out- break would be critical for limiting casualties. For many, but not all, biological agents there are medical treatments that can greatly lower the mortality rate. There currently are, however, insufficient supplies of medicinals and trained personnel to cope with a massive bioterrorist or biological warfare use of biological weapons. Increasing our preparedness is critical.

Ventner A. Biological warfare: The poor man's atomic bomb. Jane's Intel Rev 1999; Mar:42-7

History records a surprisingly low incidence of biological weapon use, with only a hundred or so documented cases this century. However, biological warfare is far from out of fashion with mid- and small-sized nations and this threat is on the increase.

Comment. These are three useful articles that look at biological weapons and their potential use as terrorist weapons. All three articles are thought provoking, particularly with regard to the requirements for national preparedness.

Seelos C. Lessons from Iraq on bioweapons. Nature 1999; 398:187-8

There are strong political pressures to relax the scrutiny of suspected biological weapons activity in Iraq. But the experience of United Nations inspectors in the country points to significant dangers in such a policy.

Comment. Christian Seelos, one of the Biological team members at UNSCOM, has produced a timely review of the Iraq biological weapons program and the dangers of not resuming the monitoring this program. If we can't get it right in Iraq, can we get it right anywhere?