Editorial

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Infectious Disease and Biological Weapons

Prophylaxis and Mitigation

The topic of biological warfare (BW) was last covered systematically by JAMA, as part of a discourse on weapons of mass destruction, in August 1989. That year marked the bicentennials of the French Revolution and the start of the American presidency. By year's end, 1989 also marked the collapse of the Soviet Empire, and with that the end of the cold war. The Biological Weapons Convention (BWC) had been in place since 1972; nevertheless, compliance on the part of great states, notably Russia, with that convention was the centerpiece anxiety in 1989. United States national policy was likewise concentrated on the defense of our troops in tactical combat settings.

Medical interests, notably symbolized by the World Health Organization's pleas had played a significant role in the diplomatic priority given to the BWC, and then to concern for its enforcement. Since 1989, the Persian Gulf War, the escalation of terrorism, and a recrudescence of many infections have added new dimensions to concerns for the malicious incitement of disease. Iraq was proven to have developed and militarized a repertoire of BW agents, notably anthrax spores. Terrorists achieved new levels of violence in New York, Oklahoma City, and Tokyo—and operated on ever more incomprehensible and unpredictable rationales. Having deployed chemical weapons in Tokyo and dabbed in BW, terrorists would soon be attempting to deploy BW on an increasing scale. It is not difficult to find recipes for home-brew botulinum toxin on the World Wide Web; terrorists justify this with the proposition that every citizen should have the parity of power with government. Meanwhile, the growth of biotechnology has great promise for new modes of diagnosis and therapy, but if left unchecked, advances in biotechnology will allow for even more troublesome microbiological agents of destruction.

This theme issue of JAMA then touches on a set of timely concerns that unite national security and public health, concerns that cry out for well-articulated convergence of the human community worldwide. Various articles in this issue touch on the historical, diplomatic, and legal background; on mo-
With regard to infectious disease and microbiologic agents, physicians in every country should insist on being empowered to scrutinize suspicious occurrences and facilities and to investigate outbreaks. I do not suggest that every physician be mandated to snipe into every commercial or governmental facility, but every physician should be free to ask for evidence of the kind of intermediating oversight that will provide assurance of legitimate. Such machines already govern the protection of research subjects and of environmental safety. Knowledge that Russian physicians were freely and actively engaging in their own government and military on the disposition of cold war-era BW facilities would be far more reassuring than any formal system of verification by transnational inspection (and its absence correspondingly alarming). Revival of trust will be further promoted by initiatives for joint cooperative research and public health programs, particularly in infectious disease, some of which are beginning to be emplaced.

Finally, physicians will be in the front line for remediation in the wake of BW attack. They should be alert to any constellation of disease that might be the harbinger of new outbreaks. This issue of THE JOURNAL includes an invaluable primer on the most likely exotic agents, otherwise hardly expected to be within the ken of most physicians. In the United States, individual clinicians would of course funnel their reports to local and state public health offices, and in turn to the national Centers for Disease Control and Prevention (Emergency Response Coordination Group, telephone (770) 487-3400).

Besides their personal contribution, physicians are in the best position to assess the readiness of local health services, police, and first-responders to deal with health emergencies. This is the same apparatus needed to deal with natural disease outbreaks—recall Legionella and Escherichia coli O157:H7 of recent vintage. The local responders also need to be trained in exercises entailing support from the Public Health Service and, if need be, military personnel. Several articles in this issue point to recent progress, and a long way still to go, in the coordination of resources among a host of US governmental agencies—federal, state, and local. In view of the rapid dispersal of people via jet aircraft, that coordination needs to be extended to a global venue, and this scarcely exists at all at the present time. 

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