Reflections

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Ideally, editorials are written one to two months before publication in the *Journal*. It was my turn to write this one. I had planned to write the first draft the evening after my clinic on Tuesday, September 11. It didn't get done that night or during the next week. Somehow, the topic that I had originally chosen just didn't seem that important anymore as I, along my friends and colleagues, reflected on the changes that the events of that day were likely to have on our lives.

We spend a considerable amount of time in airports and flying to destinations around the world. Until last week, our major concerns were delayed flights, long line-ups, lost checked luggage, impending snow storms and getting ourselves upgraded. Now we worry whether it could happen again. Many question their need to go to all those conferences, workshops or meetings. The Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC) was postponed, in part, for that reason. Airport security will be tighter in the future. No one knows whether that will actually protect against a similar attempt, but it certainly will add to the stress of flying.

At this moment, the concept of satellite conferencing replacing some of our need to travel seems like a great idea. The recent events may, indeed, result in the increased use of telecommunication and telemedicine. Many of us already have trouble scheduling attendance at meetings with the demands of call schedules and family obligations. The use of satellite conferencing of plenary sessions at large meetings would allow many of us to 'attend'. Such conferencing would also allow smaller centres to host a number of the meetings that are currently restricted to a few large cities because of the need to accommodate large numbers of expected participants. Smaller cities, somehow, seem safer these days.

As well, the use of this technology will vastly improve our ability to provide optimal medical care to patients in more

remote communities. Health care providers can participate in educational sessions with specialists without the need to be away from their communities and patients for several days. Patients can be 'seen' by specialists without the need to travel long distances, with all the associated disruptions to their work and family life.

If September 11 had seen an act of bioterrorism involving the dispersion of a substance such as anthrax, those of us in infectious diseases and medical microbiology community would not have been that surprised. We have been aware of the potential dangers of bioterrorism for some time. Checking on the Internet, 12,400 Web pages are devoted to bioterrorism, and Index Medicus cites 164 published articles from the medical literature about this subject. There was an editorial on this subject in *The Canadian Journal of Infectious Diseases* two years ago (1). Despite this, most of us can't really bring ourselves to believe that something like that may actually happen. Yes, we have gone through the motions of developing contingency plans. Many of us have given well-attended talks on the subject. It is one topic that is 'sexy' and could be guaranteed to attract a good audience. However, we will now take this threat much more seriously.

Although most of us still cannot comprehend that Canadian sites would be a target for such activities, we should remember that legitimate scientists are not the only ones who do 'proof of concept' studies before conducting major projects. Those contingency plans need to be reviewed. We need to think like a terrorist and determine 'the what, the how and the when' of potential bioterrorist attacks. Although anthrax and smallpox are the classic agents most often discussed, many others could effectively cause significant harm and social disruption. We also need to train 'first responders' to recognize the manifestations of the unusual pathogens which could be used. They must know how to diagnose these illnesses and the procedures needed to report them.

Finally, we need to improve our infectious diseases surveillance programs to allow for the easier reporting of illnesses and faster analysis of changes in disease incidence. For example, the release of a pathogen among those waiting to pass security at an airport would result in individuals becoming ill in numerous localities. Only a national or international surveillance system with real-time reporting could quickly detect and investigate an unexpected number of individuals with similar illnesses who present over a short time in numerous localities. Technology is available to implement such a system, but admittedly, there will be an initial cost to implement it. Remember, it is of no practical use to determine that there was

an unusual cluster of cases, all fitting the pattern of a bioterrorism attack, months after it may have occurred. Clearly, such a system would not only be used to monitor for potential bioterrorism, but this improved surveillance would also allow for the earlier detection of natural epidemics; the real-time monitoring of sexually transmitted, vaccine preventable or other reportable diseases; and the monitoring of drug and vaccine adverse events. In fighting bioterrorism, we may also be improving our public health care system.

REFERENCE

1. Nicolle L. The unthinkable. *Can J Infect Dis* 1999;10:11-2.

The editorial board of The Canadian Journal of Infectious Diseases, the publishing staff of Pulsus Group Inc and the members of the Canadian Infectious Diseases Society extend our sympathy to the families and friends of those who tragically lost their lives as a result of the terrorist attacks in the United States on September 11, 2001.

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