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THE LANCET

# Infectious Diseases

## An appropriate response to SARS

Every so often a new infection emerges to cause disease in human beings. The newcomers that cause the most excitement for the medical community and the media are those with the winning combination of causing a severe disease with morbidity, and being of unknown origin. Severe acute respiratory syndrome (SARS) fits the bill perfectly. By contrast, only 2 years ago a "new" human metapneumovirus (HMP) was described in the Netherlands. It soon became evident that HMP was neither new nor exotic, and seems to have affected most human beings going back decades. Although the virus caused a great deal of excitement in the scientific community, the media hardly batted an eyelid; despite the fact that the clinical features of HMP mimic those of human respiratory syncytial virus, and infant deaths are not uncommon.

Respiratory infections are the leading cause of human mortality and accounted for 3.9 million deaths in 2001. To be sure, early on in the SARS outbreak there was reason for major concern when it was thought that the disease could be an unusually virulent and fatal form of pneumonia. But despite the virus travelling around the world "at the speed of a jumbo jet", to date the number of cases is still relatively low (see page 268). The mode of transmission does not seem to be airborne. The number of deaths from SARS can further be put into perspective. China (including Hong Kong) has reported 80 deaths in 4.5 months. According to a recent *Morbidity and Mortality Weekly Report*, in 122 cities in the USA, with a total population much less than one quarter that of China's, there were 890 deaths from pneumonia and influenza in 1 week alone.

What is confusing is that countries perceive the disease risk quite differently. Whereas the WHO believe SARS transmission is not airborne, and are hoping the disease can be contained, the CDC have used the term airborne in their reports, and have been bold enough to say that the disease is spreading very rapidly and is a great global threat. It is unclear why this discrepancy has occurred, but there is a feeling that the USA is very much in homeland-security mode, and that their reporting of SARS is more of a reflection of the current political environment than of the scientific environment.

Travel restrictions, quarantines, and closures of public buildings are crippling China and Hong Kong's

economy, trade, and tourism. But with every new microbe there is the element of unpredictability, and since the disease continued to spread, the WHO deemed it necessary to impose the maximum possible public-health restrictions. For Hong Kong, the WHO's recommendation to postpone travel was based on the fact that the epidemiology of the disease appeared to be changing, or was at least being modified. Whereas in Guangdong, in southern China, the same recommendations were made because of lack of information. The need for countries to be completely transparent when reporting an infectious disease outbreak is imperative. If there are inadequate resources to cope with outbreaks of this nature, as reported in the poorer provinces of southern China, the WHO and other such organisations need to be alerted. Governments must realise that withholding information will only worsen their situation. One only needs to be reminded of the 1994 "plague" epidemic in Surat in India that killed 56 people. Although the cause was never reliably elucidated, it nevertheless resulted in billions of dollars in economic loss and considerable human suffering.

As we go to press (April 10), much remains unknown about SARS—eg, the true nature of the cause, a definitive diagnostic test, and the mode of transmission. We need to understand whether there is a more widespread infection in the community, and whether the cases represent only the clinical tip of an iceberg. If infection is widespread in the community with a lot of subclinical infection, then this outbreak will be difficult to contain in the long term.

What has been remarkable is how the international community has pulled together to tackle SARS. The response has been unprecedented with 11 laboratories worldwide working around the clock. Interestingly these laboratories are normally staunch competitors when it comes to research, yet they are freely sharing information despite the fact that everyone knows a new virus is the prize. Perhaps this reflects a new scale of co-operation in international outbreak response, moving from small groups of institutions collaborating on individual outbreak responses to every institution that makes any difference in the world working together. At the current rate of progress it should not be long now before the true identity of SARS is revealed.

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