

The SARS Outbreak: Immediate and Future Lessons for the Medical Profession

By Prof Wong Tien Yin

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Severe acute respiratory syndrome, or SARS, will be featured in this issue of the *SMA News* for the second consecutive month. SARS was first identified in Vietnam in late February 2003. Since then, it has spread and has been diagnosed in nearly 3,000 patients in 17 countries, killing more than 100 people.

SARS continues to dominate the headlines in Singapore and many of the other afflicted countries, particularly in Hong Kong and China. There are no signals that SARS will abate anytime soon. The socioeconomic implications are unclear, but will likely be substantial. There are obvious issues, such as those dealing with international travel, which the Government's interministerial committee will need to address. What are the lessons for the medical profession that we can draw from this outbreak?

Lesson 1: emerging infectious diseases in a connected world

The first lesson is emerging infectious diseases are not confined by geographical boundaries in the new century. SARS has shown that a disease can spread rapidly under the conditions created by a highly mobile, closely interconnected world. SARS and any other infectious agents can be transmitted, unsuspected and undetected, in an asymptomatic person, from one city in the world to any other city connected by an airport within hours.

Are Singapore doctors equipped to deal with these emerging 21st century diseases? Previously, with the

exception of AIDS, most new infectious diseases (eg, avian influenza, Nipah virus, hantaviruses) have been confined to specified geographical areas, partly because patients with these diseases during the period of high infectivity, are ill and unwell to travel. However, the presentation and epidemiology of SARS suggests that patients with deadly infectious diseases may be well enough to travel and may be highly infectious during that period. Thus, the medical profession should be acutely aware of the global threat of new infectious diseases from other localities that previously did not present in Singapore.

Lesson 2: a dry run for the threat of bioterrorism

The second lesson concerns how the Singapore medical and public health community must deal with the potential threat of bioterrorism in the future. SARS is a wake-up call of the amount of manpower, resources and coordination needed to successfully mount a public health campaign against a single infectious agent that requires close personal contact for transmission and has a low case fatality rate. Infectious agents used in bioterrorism are likely to be more infective and lethal. We need to review honestly where we have misplaced a step or missed a beat on this crisis. We should then learn from these mistakes so that we can improve on the current approach and adequately manage the threat of potential bioterrorism, the next influenza pandemic or the next emerging infection.

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Lesson 3: a new meaning to hospital acquired infections

The concentration of SARS cases in previously healthy hospital staff is the third important lesson for the medical community. Although many of us are aware of the fact that patients we treat may transmit infectious diseases, the unprecedented scale of the attack on the healthcare profession has caught us by surprise. In truth, guidelines on infectious disease control are taught early in the medical school curriculum, but are quickly forgotten, particularly by those of us who do not deal frequently with infectious diseases. Hospital acquired infections (HAI) that are usually "confined" to patient-patient transmission will take on a new meaning. Doctors, nurses and allied health colleagues must now be aware that they can be potential cases of HAI. A high index of suspicion is necessary.

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Lesson 4: doctors can fall sick too

A related lesson is that doctors can transmit diseases to patients under our care. This applies specifically to junior doctors, house and medical officers, and registrars, as the SARS outbreak has clearly shown. Traditionally, because of the heavy workload, medical leave is discouraged and, in some cases, frowned upon by the senior medical staff. (Remember the senior consultants who say that they have not taken a day of medical leave for the past ten years?) When we fall sick, but continue to manage patients, we do our patients a disservice. Remember our oath: first, do no harm.

The emergence of SARS presents a formidable challenge to the Singapore medical and healthcare community. It is foolish to believe that SARS will die off quickly, or that we will not be faced with a new, potentially more serious infection. The key challenge for us in the medical profession is to be cautious and not panic, to work as a team, and to provide encouragement and hope to our patients, our colleagues and our community. **SMA**



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