

## **Current Concerns About SARS (Severe Acute Respiratory Syndrome)**

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Many dangerous infectious diseases have the potential to affect the prosperity of humankind. The ravages wrought by the Spanish flu, which is thought to have been a new strain of influenza, as well as the scourges of syphilis in the 18<sup>th</sup> century, tuberculosis in the 19<sup>th</sup> century and AIDS in the late 20<sup>th</sup> century, all teach us how diseases can affect the course of history. At the dawn of the 21<sup>st</sup> century, SARS became the most recent infectious disease to threaten human prosperity. I would therefore like to talk to you today about the history of the outbreak and treatment of this disease, as well as its current status and how it should be dealt with in the future.

First, let me explain the symptoms of the disease. The first signs are a fever of 38 degrees or more, chills, muscular pain and other symptoms throughout the body. These are followed by symptoms of respiratory distress such as coughing and inflammation. Thus, the symptoms are very much like those of influenza.

The cause of this disease is a new strain of corona virus that has an incubation period of approximately one week before symptoms appear. It is most contagious during the stage when coughing and other respiratory symptoms are apparent.

According to a report issued by the World Health Organization (WHO) in October 2003, there were 8,098 cases of SARS reported around the world to date, of which 774 ended in the death of the patient. These included 5,327 cases with 349 deaths in mainland China, 1,755 cases with 300 deaths in Hong Kong, and 251 cases with 41 deaths in Canada. There were cases of SARS reported in 32 countries around the world. The mortality rate is 9.6%. However, on July 5<sup>th</sup>, 2003, WHO declared that the epidemic had ended. Since that time, only a few cases of SARS have been reported, mostly among researchers.

Fortunately, there were no cases of SARS reported in Japan. However, in accordance with the nation's infectious disease control law, SARS has been designated an infectious disease and was later classified as Type I—the most dangerous class of communicable diseases.

In addition, preparations to handle cases, should there be an outbreak in Japan, including the training of medical personnel and creation of isolation wards, have been taken throughout the country. One issue of concern is control of the disease within hospitals designated to handle SARS cases. It is also important for the general population to understand the disease so as to avoid panic in the event of an outbreak.

Now I would like to consider why SARS spread around the world so quickly after the first case appeared in Guangdong, China in November 2002. The biggest factor in its rapid transmission to other countries was the fact that a person infected with the disease stayed at the Metropole Hotel in Hong Kong during February 2003, transmitting it to other guests staying at the hotel, who then brought the virus with them when they returned to their homes in Vietnam, Canada, Singapore, the United States and other parts of China. These patients were at first thought to have caught pneumonia from an unidentified source. From them, the disease was transmitted to medical personnel at the hospitals where they were treated. The

disease was brought under control in Vietnam relatively quickly thanks to early intervention by WHO, which raised the alarm about the new disease on March 12<sup>th</sup>, 2003. It was at this time that the disease was named SARS. On the other hand, although Canada handled the SARS outbreak in a manner befitting an advanced nation, the disease started to spread again after the country had declared that it was under control. In China, the response to the disease may have been too slow, but eventually the country made the SARS epidemic one of its top priorities and succeeded in containing it.

What we now know about SARS is that it spreads through airborne particles during concentrated contact. The likelihood of contracting the disease on city streets or from people who show no symptoms is quite low. SARS can be picked up from objects in a patient's environment, but there have been no reported cases of people contracting the disease indirectly from items such as foodstuffs, imported goods, or mail.

In sum, there are many areas where the clinical findings on SARS are yet unclear, and great care is needed in the diagnosis, care and management of this contagious disease. In Japan, great emphasis is now put on detailed questioning of tourists and Japanese returning from areas in which there have been SARS outbreaks. There is no medicine known to cure SARS, but research is being conducted to develop a vaccine to prevent its spread. Finally, it is necessary to improve the understanding of not only people working at medical facilities but also the population at large so that there will not be panic if an outbreak does occur.

Today, modern transportation systems allow us to go anywhere in the world in two days or less, making it easy for another disease like SARS to spread. Since the question about another such outbreak is therefore not "if", but rather "when" it will occur, we need to be ready to put the lessons we learned in dealing with SARS into practical use. A study of history makes it clear that the spread of disease can delay or even prevent the prosperity of humankind. Let us pray that we do not allow SARS to have such an effect.