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## **Laboratory Tests Confirm SARS Case in Southern China**

### **Isolated Case Poses No Immediate Public-Health Threat**

On January 5, 2004, the Chinese Ministry of Health and the World Health Organization (WHO) announced that laboratory tests have confirmed evidence of recent infection with severe acute respiratory syndrome—associated coronavirus (SARS-CoV) in a 32-year-old man in Guangdong Province, China. The patient, who had onset of an illness consistent with SARS on December 16, 2003, is currently afebrile and in good condition. All the 81 identified contacts of the patient are reported to be well. Press releases from WHO Geneva and the Western Pacific Regional Office describing the case are provided below and available at [http://www.who.int/csr/don/2004\\_01\\_05/en/](http://www.who.int/csr/don/2004_01_05/en/) and [http://www.wpro.who.int/public/press\\_release/press\\_view.asp?id=322](http://www.wpro.who.int/public/press_release/press_view.asp?id=322). The WHO statements emphasize that although this case has been confirmed, there is no immediate public-health threat in southern China and it remains safe to travel in all areas of China.

The source of infection for this case has not been identified. As noted in the WHO press releases, Chinese authorities have taken steps to minimize contact between humans and animals thought to carry SARS-CoV, including culling of civet cats and related species.

The U.S. Centers for Disease Control and Prevention (CDC) is in close communication with WHO regarding this case of SARS. Because this is an isolated case with no evidence of person-to-person transmission, the U.S. guidelines and recommendations for SARS surveillance, evaluation, and reporting in the absence of SARS-CoV transmission still apply. For more information, see the CDC document, “In the Absence of SARS-CoV Transmission Worldwide: Guidance for Surveillance, Clinical and Laboratory Evaluation, and Reporting” at <http://www.cdc.gov/ncidod/sars/absenceofsars.htm>. The document is part of CDC's draft *Public Health Guidance for Community-Level Preparedness and Response to Severe Acute Respiratory Syndrome (SARS)* <http://www.cdc.gov/ncidod/sars/sarsprepplan.htm>.

Additional reports about the SARS case in China will be distributed as more information becomes available.

#### **Laboratory confirmation of a SARS case in southern China**

*5 January 2004*

Results from laboratory tests received today have confirmed a case of SARS in a 32-year-old man in the southern Chinese province of Guangdong. The patient is a television producer who has been under treatment, in isolation, at a hospital in the provincial capital, Guangzhou, since 20 December.

This is the first confirmed case of SARS in 2004, and the first case not linked to a laboratory accident that has occurred since the initial outbreak of SARS was declared contained on 5 July 2003. Laboratory-related cases occurred after that date in Singapore in September and in Taiwan, China in December of last year.

The Guangdong case has been under investigation, with WHO support, since 26 December, when the suspected case was initially reported by Chinese authorities. Previous diagnostic tests produced inconclusive results. In view of the limitations of SARS diagnostic tests, confirmation of positive results by a WHO-designated reference laboratory is required for a definitive diagnosis of SARS.

The confirmatory tests were conducted in Hong Kong by the University of Hong Kong and the Government Virus Unit, Queen Mary Hospital. Both laboratories are members of the WHO Multicentre Collaborative Network for Severe Acute Respiratory Syndrome (SARS) Diagnosis that collectively identified the SARS coronavirus in mid-April 2003, and have considerable diagnostic expertise.

The source of infection for this newly confirmed case remains unclear. Several lines of investigation last year suggest that SARS may have originated from contact with wild animals sold for human consumption at live markets in southern China. Studies conducted last year detected a SARS-like virus in some animal species, including the masked palm civet. Retrospective analysis of patient records has linked several of the earliest cases, which began occurring in Guangdong in mid-November 2002, to contact with wild animals. However, no animal reservoir of the SARS coronavirus has been conclusively identified to date.

Epidemiological investigations in China have not yet been able to link the patient to exposure to wild animals or any other known or suspected source of the virus.

Chinese authorities have introduced several measures as investigation of the case has evolved. The patient has been treated in isolation since his hospitalization on 20 December, four days after the onset of symptoms. All contacts have been traced and followed up. All are reported to be free of symptoms and most have been released from quarantine, suggesting that no further transmission has occurred. Surveillance for additional cases has been intensified in Guangdong and other provinces.

The single isolated case does not constitute grounds for issuing a SARS alert or recommending any restrictions on travel or trade.

At the request of Chinese authorities, additional WHO teams are being sent this week to assist in research aimed at identifying the source of infection and preventing further cases.

The first cases of SARS occurred in Guangdong in mid-November 2002. The disease began to spread internationally in late February 2003, eventually causing more than 8000 cases, with 774 deaths, in 27 countries

Source: WHO Geneva [http://www.who.int/csr/don/2004\\_01\\_05/en/](http://www.who.int/csr/don/2004_01_05/en/)

**China and WHO confirm SARS case in Guangdong Province**

*5 January 2004*

Results from laboratory tests over the weekend have led the Ministry of Health of China and the World Health Organization (WHO) to upgrade the suspected SARS case in southern China to a laboratory-confirmed case.

The latest results were obtained from virus neutralization antibody tests carried out by two laboratories in Hong Kong SAR, China, that are part of the WHO international laboratory reference network, as well as by a laboratory under the Chinese Centre for Disease Control and Prevention in Beijing.

The virus neutralization tests from all three laboratories indicate that the male patient, a 32-year-old television producer in Guangzhou, Guangdong Province, has recently been exposed to a SARS coronavirus (CoV).

The tests compared the level of SARS neutralizing antibodies in the patient's blood over recent days with levels found early in the course of his disease. The results showed that the level of these antibodies had risen significantly, fitting the laboratory definition of SARS.

The tests in Hong Kong were carried out by teams from Hong Kong University and the Government Virus Unit. The results from the international reference laboratories were conveyed to WHO on Monday 5 January 2004. In turn, WHO informed the Ministry of Health of China in Beijing. At the same time, an international panel of WHO experts - from WHO headquarters in Geneva, the regional office in Manila and the China office - held a teleconference to discuss the results from Hong Kong and Beijing. As a result of this discussion, WHO concluded that the case is indeed a laboratory-confirmed SARS case. This conclusion was then passed to the Ministry of Health of China.

Because of initially inconclusive tests, WHO had recommended to the Ministry of Health of China that it send samples for testing to laboratories within the WHO international laboratory reference network. The Ministry of Health of China selected the two laboratories in Hong Kong SAR, China, as the best choices under the circumstances, given the proximity of these facilities to Guangdong, as well as the fact that these laboratories conducted extensive testing during the SARS outbreak last year.

### **One case is not an immediate public-health threat, but precautions must continue**

WHO said it is important to stress that although this case has now been classified as a SARS case, this does not indicate there is an immediate public-health threat in southern China. It is safe to travel to all areas of China.

SARS can be controlled and contained if there is a system that allows early detection and isolation of cases and timely contact tracing. The Guangdong provincial health authorities are clearly committed to developing such a system and major steps have been taken to achieve this.

The Guangdong provincial authorities have so far identified 81 contacts of the patient, of whom 25 were classified as close contacts, 39 as casual contacts and 17 as healthcare workers. All 25 close contacts and 39 casual contacts have been released from quarantine and are said to be well. The healthcare workers will be kept under observation until 14 days have passed since their last contact with the patient. At this stage all the healthcare workers are well.

A joint Ministry of Health of China and WHO team visited Guangdong Province last week as part of the ongoing investigation into the case. They concluded that the situation in Guangzhou appears to be under control at the present time. Although that assessment was made before the suspect case was upgraded to a confirmed case, it would still appear to hold true. But at the same time WHO has also urged the Ministry of Health of China and Guangdong provincial health authorities to further strengthen the surveillance system and widen the scope of the investigation in the coming days and weeks.

There is a need to ensure that the practices seen in Guangzhou are consistent throughout Guangdong Province, and indeed all other provinces and autonomous regions in China as well.

Other parts of the health care system (e.g., emergency departments and Chinese medicine clinics) need to be better integrated into the current surveillance system, because not all people with fever and cough are reporting to the "fever clinics" that were set up during last year's SARS outbreak.

The joint team in Guangdong Province also found that while current infection control practices in healthcare settings appear to be satisfactory, further refinements should be made.

At the invitation of the Ministry of Health of China, more WHO international experts will be heading to Guangdong Province this week to assist in the investigation in this case, including trying to find the possible source of the infection. They will use the earlier WHO team's assessment and review as a guide, and expand upon it as the situation warrants.

### **Wildlife thought to carry and transmit SARS virus to be slaughtered**

Meanwhile, WHO today welcomed a decision by the Chinese authorities to try and minimize contact between humans and the animals thought to be carrying the SARS virus.

"WHO has long maintained that animals could be reservoirs for the SARS CoV, and hence a source of infection," said Dr Hitoshi Oshitani, who leads WHO's response to SARS in the Western Pacific Region. "WHO has repeatedly called for more research to identify which animals are capable of carrying and transmitting the virus to humans, and, very importantly, under what circumstances the virus is able to transmit from animals to humans."

Dr Oshitani cautioned that if wild animals are to be slaughtered, the people carrying out the cull should be protected from infection. "The cull should be done cautiously," he said. He also warned against the danger of the wildlife trade being driven underground, where it could not be monitored.

In addition to research into potential animal sources of infection, further investigation is needed into possible human or environmental sources. "At this stage, there are too many unknowns," Dr Oshitani said.

### **WHO would like to reiterate the following:**

- One confirmed SARS case does not constitute an immediate public-health risk.
- It is perfectly safe for members of the public to travel to Guangdong Province.

- There is no evidence of a spread of infection from the patient to date. All the 81 identified contacts are reported to be well.
- Health authorities in Guangdong Province, together with the Ministry of Health of China and the Chinese Centre for Disease Control and Prevention, have treated this case all along as though it was SARS, using the system established following the outbreak of 2003 (including the tracing, isolation and medical observation of contacts).
- Health authorities in Guangdong Province and Hong Kong have worked together to implement safety measures in the area, in terms of travel, temperature checking and other steps in the wake of this case in Guangzhou.
- Health authorities have been using this case as a way to determine how well the current surveillance system works, and a review of the process so far in this case is already under way.

The Ministry of Health of China has been providing WHO with information daily on this case, and we welcome the opportunity to assist China as it tackles this situation.

Source: WHO Western Pacific Region [http://www.wpro.who.int/public/press\\_release/press\\_view.asp?id=322](http://www.wpro.who.int/public/press_release/press_view.asp?id=322)

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**DEPARTMENT OF HEALTH AND HUMAN SERVICES**