

Media centre

WHO statement on the ninth meeting of the IHR Emergency Committee regarding MERS-CoV

WHO Statement
17 June 2015

The ninth meeting of the Emergency Committee (EC) convened by the Director-General under the International Health Regulations (IHR 2005) regarding Middle East respiratory syndrome coronavirus (MERS-CoV) was conducted with members and advisors of the Emergency Committee by teleconference on 16 June 2015, from 12:00 to 15:00 Central European Summer Time (UTC +2). WHO convened the meeting in regards to the outbreak in the Republic of Korea.

The WHO Secretariat updated the Committee on epidemiological and scientific developments, including recent cases and transmission patterns in the Republic of Korea and China, related risk assessments, and control and prevention measures. These countries provided updates and assessments on the MERS-CoV situation and developments in their countries.

Members and advisers of the Committee who participated in the recent Republic of Korea-WHO MERS Joint Mission, were invited to share their observations based on their experience.

The Committee noted the assessment of the Joint mission regarding main factors contributing to the spread of MERS-CoV in the Republic of Korea were:

1. lack of awareness among health care workers and the general public about MERS;
2. suboptimal infection prevention and control measures in hospitals;
3. close and prolonged contact of infected MERS patients in crowded emergency rooms and multibed rooms in hospitals;
4. the practice of seeking care at multiple hospitals ("doctor shopping");
5. the custom of many visitors or family members staying with infected patients in the hospital rooms facilitating secondary spread of infections among contacts.

The Committee commended the speed with which the Republic of Korea provided information under the IHR about an infected traveller, enabling China to rapidly locate, isolate and provide care to the individual and place his contacts in quarantine.

The Committee noted that available evidence on genetic sequencing did not identify any significant changes in the viruses obtained from cases in the Republic of Korea compared to viruses from the Middle East. Ongoing monitoring of potential genetic changes in these viruses is important. In this outbreak, transmission of MERS-CoV has been strongly associated with health care settings. This aspect stresses the need for health authorities to make every possible effort to ensure that effective infection prevention and control measures are in place at all times.

There is no current evidence of sustained community transmission. The Committee noted that subsequent public health measures to stop the outbreak, including extensive efforts to enhance contact tracing and steps to ensure that cases and contacts (during the incubation period) are appropriately isolated or quarantined and monitored and that they do not travel, appear to have coincided with a decline in the incidence of cases. However, close monitoring of the situation remains critical to ensure that transmission is interrupted and that all cases without an evident epidemiological link to known chains of transmission be evaluated carefully. For the next several weeks, it is possible for additional cases to be identified, including among contacts who were not identified in the early stages of the outbreak. If reports or rumours of contacts travelling outside of the country are identified, it is important that other countries take notice and quickly assess such possibilities.

The Committee noted that there are still many gaps in knowledge regarding the transmission of this virus between people, including the potential role of environmental contamination, poor ventilation and other factors, and indicated that continued research in these areas was critical.

The Committee expressed its assessment that this outbreak is a wakeup call and that in a highly mobile world, all countries should always be prepared for the unanticipated possibility of outbreaks of this, and other serious infectious diseases. The situation highlights the need to strengthen collaboration between health and other key sectors, such as aviation, and to enhance communication processes.

The Committee reiterated that its previous advice¹ remains relevant and indicated its strong support for the recommendations of the Joint Mission².

The Committee concluded that the conditions for a Public Health Emergency of International Concern have not been met.

In reaching this conclusion, the Committee noted that after the outbreak was detected, and after a period of organization, the Republic of Korea has strongly initiated actions to bring this outbreak under control. This includes use of multiple approaches to identify contacts and to ensure their appropriate quarantine and monitoring, as well as effective means to stop inappropriate travel of cases and contacts during the period of time when they are potentially infectious. Such efforts reflect adoption of the recommendations of the Joint Mission.

Based on the Committee's advice and information currently available, the Director-General accepted the Committee's assessment. She thanked the Committee for its work.

WHO does not recommend the application of any travel or trade restrictions and considers screening at points of entry to be unnecessary at this time. Raising awareness about MERS and its symptoms among those travelling to and from affected areas is good public health practice.

WHO will continue to provide updates to the Committee Members and Advisors. The Emergency Committee will be reconvened should circumstances require.

¹ IHR Emergency Committee concerning Middle East respiratory syndrome coronavirus

² High level messages - assessment and recommendations

Emergency Committee Members

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High-level messages

Assessment

- This outbreak in the Republic of Korea, which started with the introduction of MERS-CoV infection into the country by a single infected traveller, was amplified by infection in hospitals and movement of cases within and among hospitals.
- A combination of older and new cases continues to be reported, but the epidemic curve shows that the number of new cases occurring each day appears to be declining. This decline has coincided with much stronger contact tracing, monitoring and quarantine, suggesting that disease control measures are working. These measures are greatly facilitated by expanded laboratory testing. However, several weeks will be required to confirm the impact of the measures and whether the outbreak is fully controlled.
- Several factors appear to have contributed to the initial spread of this virus.
 - The appearance of MERS-CoV was unexpected and unfamiliar to most physicians
 - Infection prevention and control measures in hospitals were not optimal
 - Extremely crowded Emergency Rooms and multi-bed rooms contributed significantly to nosocomial infection in some hospitals.
 - The practice of seeking care at a number of medical facilities ("doctor shopping") may have been a contributing factor
 - The custom of having many friends and family members accompanying or visiting patients may have contributed to secondary spread of infection among contacts.
- The rapid increase in numbers of cases has led to much speculation as to whether there may be new contributing factors to transmission. It is too early to draw definitive conclusions at this time, but certain observations can be made:
 - There is no strong evidence at present to suggest that the virus has changed to make the virus more transmissible.
 - Thus far, the epidemiological pattern of this outbreak appears similar to hospital-associated MERS-CoV outbreaks that have occurred in the Middle East. However, this Mission has not been able to determine whether environmental contamination, inadequate ventilation, or other factors have had a role in transmission of the virus in this outbreak. There is a compelling need for further investigation.
- While there is no evidence at present of ongoing community transmission of MERS-CoV in the Republic of Korea, continued monitoring for this possibility is critical. Because the outbreak has been large and complex and more cases can be anticipated, the Government should remain vigilant and continue intensified disease control, surveillance, and prevention measures until the outbreak is clearly over.

High Level Recommendations for Government

1. Infection prevention and control measures should immediately be strengthened in all health care facilities across the country.
2. All patients presenting with fever or respiratory symptoms should be asked about: contact with a MERS patient; visits to a healthcare facility where a MERS patient has been treated; and history of travel to the Middle East in the 14 days before symptom onset. Any patient with positive responses should be promptly reported to public health authorities and managed as a suspected case while the diagnosis is being confirmed.
3. Close contacts of MERS cases should not travel during the period when they are being monitored for the development of symptoms.
4. Strong consideration should be given to re-opening schools, as schools have not been linked to transmission of MERS-CoV in the Republic of Korea or elsewhere.
5. The most important steps needed to stop further cases involve continued implementation of basic public health measures by all health authorities. These include:
 - a. early and complete identification and investigation of all contacts
 - b. robust quarantine/isolation and monitoring of all contacts and suspected cases
 - c. full implementation of infection prevention and control measures; and
 - d. prevention of travel, especially internationally, of infected persons and contacts

6. Local governments must be fully engaged and mobilized in the national fight against this large and complex outbreak.
7. In parallel with disease prevention and control measures, steps should be taken to strengthen domestic and international confidence and trust. The most important actions involve improving risk communications. The Ministry of Health and Welfare should provide regularly updated information (in Korean and English) on the epidemiological situation, investigations, and disease control measures.
8. Additional staff (for "surge capacity") are urgently required for the response and to provide relief for staff already working on the outbreak.
9. Selected hospitals should be designated for safe triage and assessment of suspected MERS cases. This will require trained personnel, facility management, and communication with the public.
10. Comprehensive research studies designed to close critical gaps in knowledge, including sero-epidemiologic studies, should be completed and the results widely communicated as quickly as possible.
11. The Republic of Korea should ensure that it is able to optimally respond to future outbreaks. In particular, it should strengthen the medical facilities needed to deal with serious infectious diseases, including increased numbers of negative-pressure isolation rooms; consider how to reduce the practice of "doctor shopping"; train more infection prevention and control specialists, infectious disease experts, laboratory scientists, epidemiologists, and risk communication experts; and invest in strengthening public health capacities and leadership, including at Korea Centers for Disease Control and Prevention (KCDC).



The New York Times | <http://nyti.ms/1enybO5>

ASIA PACIFIC

South Korean Hospital Scrutinized in MERS Outbreak

By **CHOE SANG-HUN** JUNE 17, 2015

SEOUL, South Korea — It is the jewel of South Korea’s medical service: a 1,900-bed hospital of steel and glass owned by the Samsung conglomerate. It is also where a 35-year-old man whose symptoms were misdiagnosed as pneumonia languished for three days in an overcrowded emergency room and hallway, where he coughed up sputum teeming with the Middle East respiratory syndrome virus and exposed dozens.

Doctors of the renowned hospital, the Samsung Medical Center in Seoul, were the first to confirm the disease, known as MERS, in another patient a week earlier but failed to make the connection between the two cases. Investigators now say the misdiagnosed patient, awaiting a vacant bed in a general ward upstairs, wheezed and expectorated in common areas with no oversight, turning into a MERS “superspreader.”

The mistakes by the Samsung Medical Center are now the focus of much that has gone wrong to escalate the MERS crisis in South Korea, the worst outbreak beyond Saudi Arabia, where the disease first appeared in 2012. As of Thursday, nearly half of all 165 confirmed MERS cases in South Korea have been traced to Samsung, historically regarded as the nation’s best hospital.

Several hundred of its patients are under quarantine in the hospital or elsewhere, either because their infections have been confirmed or they are under observation for symptoms. Nearly 300 of its 3,900 medical and other staff members are under similar quarantine. Other hospitals have refused

to accept patients from Samsung for fear of infection. By Sunday, it stopped taking new patients as it struggled to prevent the virus from further spreading beyond its gleaming compound.

“We offer our deep apologies to all MERS patients and those quarantined because of our employees,” said Song Jae-hoon, the medical center president, bowing before television cameras.

Until now, Samsung’s reputation for quality had gone unchallenged. South Koreans looked no further than its list of patients: Lee Kun-hee, the country’s richest man and the chairman of the Samsung conglomerate, has been hospitalized there, in a 20th-floor V.I.P. room, since his heart attack last year.

Nobody was surprised when Samsung diagnosed the country’s first case of MERS on May 20, attributing the discovery to its medical skills.

Calling Samsung a general hospital hardly explains its place in South Korea’s system.

In South Korea, when a parent gets sick, it is widely considered a filial duty for the children to mobilize all connections to secure a bed in Samsung or in a few other megahospitals, including one run by another family-controlled conglomerate, Hyundai, that they believe provide the best care.

When that strategy fails, patients are often taken into the hospitals’ emergency rooms, where they can wait for days for a bed in a general ward.

The Samsung hospital beds were usually filled, with 1,800 patients, and a long waiting list. Each day, 8,500 outpatients passed through.

But it was not just the fame of Samsung that attracted patients. Medical service is so affordable under the country’s universal medical insurance system that “there is no threshold at hospitals,” said Kwon Jun-wook, a senior Health Ministry official.

“Patients go to hospital as if they go shopping,” Mr. Kwon said, referring to the practice of hospital hopping to get a second opinion or to get a referral to one of the megahospitals, some of them with more than 2,000 beds.

Low medical fees also mean that hospitals must treat as many patients as possible to stay profitable. The big hospitals get more crowded as family members and private nurses they hire stay with patients. It is also

important to social etiquette for South Koreans to visit hospitalized relatives, friends and colleagues, often with gifts like fruit boxes. Church members cluster around a patient's bed, praying and singing.

The overall scene looks, as Koreans like to say, like a "flea market."

It is this overcrowded hospital condition that a World Health Organization mission said had made the otherwise modern South Korean hospitals particularly vulnerable to MERS. All those in the country who have the virus were infected in hospitals. Of them, 65 were relatives, friends or family-hired caretakers who contracted the disease while they were visiting or looking after hospitalized patients.

"The Samsung Medical Center is a national hospital in the sense that there are no regional boundaries in medical service in the country and everyone wants treatment there," said Kim Woo-joo, head of the Korean Society of Infectious Diseases. "The MERS outbreak was a stress test of our medical system, revealing its problems."

At Samsung, the system began faltering when the 35-year-old man, whom investigators called Patient No. 14, arrived at its emergency room on May 27, a week after Samsung discovered the first case.

Patient No. 14 had been infected by the first patient when both were in the same hospital south of Seoul in mid-May. But neither he nor Samsung doctors had any clue that he was infected. Unlike the first case, he had no record of having visited the Middle East.

Samsung doctors diagnosed his case as pneumonia. But with no room in wards upstairs immediately available, he waited in the overcrowded emergency room for three days and sometimes loitered outside, investigators say.

It was not until May 29, when the Korean Centers for Disease Control and Prevention told them about the man's possible link to the first case, that the emergency room doctors were alarmed, according to Samsung officials. By then, the man had become the biggest superspreader in the outbreak, infecting people in South Korea's best hospital.

"It's the nation that was penetrated," Chung Doo-ryeon, a Samsung doctor, responded during a parliamentary hearing last week, when lawmakers criticized the hospital for failing to control the outbreak. But

blunders continued.

After Patient No. 14 tested positive on May 30, the hospital listed 893 people who may have come in contact with him in the emergency room and placed them in quarantine or in self-isolation at home. But it failed to trace many visitors who had been in the room.

About half of the 81 cases that were traced to the Samsung hospital were found outside that list. Not bound by quarantine, they had gone about their lives, riding subways and visiting saunas. Some visited other hospitals when fever and other symptoms occurred. A Samsung doctor continued to work until he developed symptoms last week. An employee at Samsung carried 76 patients, some in wheelchairs, before he tested positive on Friday.

The breach in the quarantine at Samsung complicated the national battle against the disease.

So far, a total of 165 MERS cases have been found in 14 hospitals, including 23 deaths. But before the disease was diagnosed, the patients also passed through 69 other hospitals, raising fears that they may have infected people there. In some train stations, the local authorities have used heat-detecting cameras to stop potential MERS carriers from entering their towns. More than 6,700 people are in quarantine or in self-isolation at home, many of them after visiting the Samsung hospital.

“What pains us the most is our failure to contain Patient No. 14 at the Samsung hospital,” said Kwon Deok-cheol, a senior official at the government’s MERS response headquarters.

Mr. Kwon said the government planned to overhaul the country’s “hospital culture,” such as unrestrained visits. But critics also blamed a “Samsung-style management” for the crisis.

The mass-circulation daily newspaper Chosun Ilbo said of Samsung Medical Center in an editorial this week, “It’s fair to say that their tendency to put profit and efficiency before public health prevented them from taking more decisive pre-emptive steps to contain the virus.”

The Samsung conglomerate, the biggest among the enormous South Korean corporate empires that have been compared to “tentacles of an octopus,” moved into the hospital business when it opened the Samsung

Medical Center in 1994. Opening a modern hospital was said to reflect the wish of Mr. Lee, the conglomerate's chairman, who used to travel to the United States for cancer treatment.

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醫療機構強化 TOCC 問診與呼吸道衛生咳嗽禮節及 加強推動照顧服務人員手部衛生之建議措施

一、醫院門診、急診及診所強化 TOCC 問診與落實呼吸道衛生咳嗽禮節

(一) 醫院：

1. 急診：

- (1) 建議採取「先檢傷並優先詢問病人 TOCC 後再掛號」的方式，由急診檢傷人員於病人進入急診的第一道關口詢問病人 TOCC，並在必要時立即啟動分流機制。
- (2) 宣導進入急診區的所有工作人員、病人及陪探病親屬應配戴口罩。

2. 門診：

- (1) 於高風險科別(例如：內科、兒科、耳鼻喉科、家醫科門診、胸腔科、感染科、綜合科等)門診區設立報到櫃台，為病人量測體溫等生命徵候；若發現有發燒或呼吸道症狀的就醫民眾應立即主動協助病人配戴口罩以及詢問病人 TOCC，並在必要時立即啟動分流機制。
- (2) 於診間門口及掛號處張貼告示，提醒有發燒或呼吸道症狀且具有旅遊史或接觸史的病人，於候診時先主動告知診間護理人員，以利及時安排分流看診。
- (3) 於候診區張貼告示宣導，請就醫民眾如具發燒或呼吸道感染症狀，應主動配戴口罩。
- (4) 提醒醫師於診治病人前，優先詢問有發燒或感染症狀病人 TOCC。

(二) 診所：

1. 請掛號人員協助詢問病人旅遊史與接觸史，並適時通知醫師啟動病人分流機制或轉診作業。

2. 提醒醫師於診治病人前，優先詢問病人 TOCC。
3. 張貼提醒告示，請就醫民眾如有國外旅遊史應主動告知掛號人員。
4. 張貼提醒告示，請就醫民眾如具發燒或呼吸道感染症狀，應主動配戴口罩。

二、加強推動照顧服務人員手部衛生

1. 將手部衛生列入照顧服務人員教育訓練必修課程；
2. 建立照顧服務人員手部衛生稽核機制，稽核頻率建議至少每季一次，以每個月一次為佳，每次至少觀察 30 個機會數。