 <b>보건복지부 질병관리본부</b>	<h1 style="text-align: center;">P r e s s R e l e a s e</h1>			
<b>Release Date</b>	September 14, 2018 (Fri.) / (14 pages)			
<b>Central Incident Management System</b>	<b>Director</b>	Lee Sang-won	<b>Phone</b>	043-719-9050
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## KCDC Central IMS Interim Report on MERS Response

- First test results return negative for all close contacts,  
All contacts being managed closely to prevent further spread -

- ◇ The first test results of all 21 close contacts of the confirmed MERS case were negative; all close contacts will under go testing a second time on Sept. 20
- ◇ Although the risk of further spread is low, MERS prevention and control measures will continue until the end of the incubation period (Sept. 22, 00:00)
- ◇ Contacts are asked to continue cooperating with officials and to contact the KCDC 1339 Call Center or their local public health center if they experience any suspected symptoms. Healthcare facilities are asked to check the DUR when managing patients and follow isolation guidelines as necessary.

- Preceding its interim report on current MERS response measures, the Korea Centers for Disease Control and Prevention (KCDC) Central Incident Management System (IMS) expresses its appreciation to the 21 close contacts under isolation, the 427 casual contacts (as of Sept. 13, 18:00), and the general public for their ongoing cooperation in prevention and control measures.

□ KCDC Central IMS Interim Report on MERS Response

- (Confirmed Case) The confirmed case (confirmed on Sept. 8) is currently being treated in a negative pressure isolation ward at Seoul National University Hospital and is in stable condition.
- (Close Contacts) All 21 close contacts tested negative for MERS on Sept. 13, which marked the average incubation period (6 days) following suspected contact.
  - This first test was conducted as part of the monitoring process to provide psychological support to close contacts concerned about their infection status. A second test will be conducted on Sept. 20, two days prior to the end of the incubation period. These contacts will be released from isolation if the second test results return negative.
    - \* Second test on Sept. 20 → Results analyzed on Sept. 21; if results return negative → Released from isolation on Sept. 22, 00:00
- All 11 contacts of the confirmed case who were classified as suspected cases tested negative for MERS.
  - \* 11 Suspected cases : 1 close contact, 10 casual contacts
- (Epidemiological Investigation) KCDC worked closely with the Seoul Metropolitan Government in conducting epidemiological investigation to identify possible routes of infection and to conduct contact tracing through direct questioning, CCTV analysis, airline passenger information, and card transaction histories.
  - A team of 2 KCDC staff and one expert from the private sector was dispatched to Kuwait on Sept. 9 to confirm the health status and management of Korean contacts in Kuwait and to gather on-site epidemiological information.
  - Current information suggests that the confirmed case's source of infection was not of domestic origin. Currently, KCDC is collaborating with the government of Kuwait and the World Health Organization (WHO) to determine the exact source and route of infection.

- (Risk of Further Spread) Taking into consideration the management of contacts and the clinical condition of the confirmed patient, KCDC determined that the risk of further spread of MERS is low. Regardless, prevention and control efforts will be maintained until the end of the incubation period.
  - The confirmed case is being treated in a negative pressure isolated ward and is in stable condition. Healthcare workers are protected from any exposure.
  - While being transported to the hospital, the confirmed case only had contact with a limited number of individuals, and first test results for all close contacts returned negative. All 11 suspected cases were also tested negative for MERS.
    - \* (2015 MERS Outbreak) The majority of infections (92.5%) occurred in hospital settings (patient wards, emergency rooms) from patients with respiratory symptoms who infected others
- In response to the confirmed case on Sept. 8, central and local government agencies initiated collaborative measures to prevent the additional spread of MERS.
  - (Response Measures) On Sept. 8, KCDC raised the infectious disease alert level from BLUE to YELLOW and established a Central IMS.
    - KCDC and the Ministry of the Interior and Safety (MOIS) established the MERS Management System (Sept. 8), the MERS Response Team (Sept. 9), and collaborative efforts with the Ministry of Justice, the Ministry of Foreign Affairs (MOFA), and the local governments of all 17 provinces to prevent the additional spread of MERS.
      - \* The Prime Minister held a meeting on Sept. 9 to call for active collaboration across relevant government sectors
    - The Infectious Disease Risk Management Committee meeting (Sept. 11 and 14), a meeting of MERS experts (Sept. 11 and 14), and a MERS response meeting for healthcare professionals (Sept. 10, with the Korean Medical Association, Korean Hospital Association, Korean Nurses Association, Korean Pharmaceutical Association) were held among infectious disease and

epidemiology experts to discuss infectious disease prevention, control, and response measures and to strengthen collaborative efforts between the public and private sectors.

- KCDC is collaborating with WHO to share contact information and updates on domestic response measures with Kuwait and other countries to prevent and control further spread of MERS at the international level.
- (Contacts Isolation) As of Sept. 13, KCDC, MOIS, and local governments are jointly conducting daily monitoring of 21 close contacts and 427 casual contacts.
  - Close contacts are isolated either at home or at designated facilities and are undergoing active surveillance. Representatives from local public health centers are assigned 1:1 to isolated close contacts and contact them twice a day (morning and night) by phone throughout the incubation period (14 days) to check for any MERS-like symptoms (fever, cough, shortness of breath, etc.).
  - Casual contacts are undergoing active monitoring. Representatives from local governments contact them once a day by phone throughout the incubation period (14 days) to check for any MERS-like symptoms (fever, cough, shortness of breath, etc.).
  - If contacts meet the conditions of suspected MERS-like symptoms, they are transferred to nationally designated negative pressure isolation beds and undergo testing, if necessary.
- (Medical Resources) 196 nationally designated negative pressure isolation beds (158 wards) in 28 hospitals around the country are currently being operated for isolated treatment of additional cases, if necessary.
  - Personal protective equipment (PPE; protective clothing sets, N95 masks, etc.) has been provided to local governments, healthcare facilities, and other relevant agencies as part of measures to prevent additional spread of MERS.
- (Quarantine Management) Through the Ministry of Foreign Affairs 0404 Call Center, travelers to the Middle East receive text messages with information on preventing MERS infection.
  - Upon arriving in ROK after visiting the Middle East, travelers submit their completed health questionnaires and undergo 1:1 internal body temperature checks.

- For early detection of suspected MERS cases, travelers entering from the Middle East receive text messages (4 times) through the Quarantine Information System after arriving, advising them to report any suspected symptoms should they occur during the incubation period. Also, the travel histories of recent travelers to the Middle East are shared\* with healthcare facilities for accurate diagnosis.
- \* Travel information is provided using the Health Insurance Review & Assessment Service Drug Utilization Review (DUR) and the International Traveler Information System (ITS)
- KCDC is collaborating closely with local government agencies in contact tracing and management to prevent the additional spread of MERS.
- KCDC would like to express its appreciation to the close and casual contacts of the confirmed case for their active cooperation. During the remaining duration of the incubation period, contacts are asked to continue cooperating with monitoring procedures. Individuals who experience any MERS-like symptoms (fever, cough, shortness of breath) are advised not to visit hospitals directly\*; instead, they should report their symptoms to the KCDC 1339 Call Center or their local public health center and follow their instructions.
- \* There is a risk of infecting other individuals by visiting hospitals and emergency rooms.
- Healthcare providers are advised to check the travel history of incoming patients with respiratory symptoms to see if they have recently traveled to the Middle East. The travel history of Korean nationals can be checked through the Drug Usage Review (DUR) system, while that of foreign nationals can be checked through direct questioning. Healthcare providers should report any patients suspected of MERS-CoV infection to local public health centers or call the KCDC Call Center at 1339.
- When visiting the Middle East, individuals are advised to maintain proper personal hygiene, such as washing hands frequently, and to avoid visits to local farms, contact with camels, consumption of raw camel meat or camel milk, and unnecessary visits to local medical facilities.

- Individuals are asked to cooperate with quarantine procedures, such as honestly completing health status questionnaires at the time of entry.
- \* (2018 MERS Cases) 114 cases in Saudi Arabia (30 deaths), 1 in Oman, 1 in UAE (as of Sept. 8)
- \* (Domestic Suspected Case Reports) 200 cases in 2016, 220 in 2017, 205 in 2018 (as of Sept. 13)
- \* Additional information on the current situation will be provided upon further epidemiological investigation to ensure rapid, accurate, and transparent communication with the public.*



Appendix  
1

## Middle East Respiratory Syndrome (MERS) Overview

	Details
<b>Cases and Outbreaks</b>	<ul style="list-style-type: none"> <li>▫ MERS cases have been identified in the Middle East around the Arabian Peninsula, with approximately 2,229 confirmed cases around the world from 2012 to June 30, 2018 (according to WHO)</li> <li>▫ Since January 2018, there have been 116 confirmed MERS cases (as of September 8, 2018) in the Middle East (114 in Saudi Arabia*, 1 in UAE, 1 in Oman)</li> <li>* One case was infected in Saudi Arabia and imported the virus to the UK</li> </ul>
<b>Pathogen</b>	▫ Middle East Respiratory Syndrome coronavirus ; MERS-CoV
<b>Mode of Transmission</b>	▫ Although the mode of transmission is uncertain, animal-to-human transmission has been observed through contact with infected camels and consumption of camel meat and milk, and limited direct and indirect human-to-human transmission has been observed through droplet infection following close contact with infected individuals
<b>Incubation Period</b>	▫ Approximately 2-14 days
<b>Symptoms and Clinical Course</b>	<ul style="list-style-type: none"> <li>▫ MERS patients usually experience fever, cough, sputum, shortness of breath, and other respiratory symptoms. They may also suffer from diarrhea, vomiting, and other gastrointestinal symptoms.</li> <li>▫ Many patients have low lymphocyte or platelet counts</li> <li>▫ Case Fatality Rate: The prognosis for those with pre-existing conditions or weakened immune systems is rather poor, with a fatality rate of approximately 30%</li> </ul>
<b>Diagnosis</b>	▫ Routing confirmation is conducted by RT-PCR testing of unique sequences of viral RNA; confirmation by nucleic sequencing can be conducted when necessary
<b>Treatment</b>	▫ There is no cure for MERS, but individuals can be treated for their symptoms
<b>Case Management</b>	<ul style="list-style-type: none"> <li>▫ Cases: Isolation of suspected or confirmed cases</li> <li>▫ Close Contacts: Passive surveillance of contacts of suspected cases, isolation and active surveillance of contacts of confirmed cases</li> </ul>
<b>Prevention</b>	<ul style="list-style-type: none"> <li>▫ Hand washing, cough etiquette, and maintaining proper personal hygiene</li> <li>▫ For travelers to the Middle East                             <ul style="list-style-type: none"> <li>- Avoid contact with camels and crowded areas; wear a mask if you experience respiratory symptoms; avoid contact with those who have respiratory symptoms</li> </ul> </li> </ul>

Appendix  
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Close and Casual Contacts Overview  
(as of Sept. 13, 2018, 18:00 )

Province	Close Contacts	Casual Contacts		Total
		Korean Nationals	Foreign Nationals	
Seoul	10	127	44	181
Busan	1	9	-	10
Daegu	-	5	1	6
Incheon	7	46	29	82
Gwangju	1	10	1	12
Daejeon	-	7	1	8
Ulsan	-	3	2	5
Sejong	-	3	-	3
Gyeonggi-do	2	100	11	113
Gangwon-do	-	1	-	1
Chungcheongbuk-do	-	5	-	5
Chungcheongnam-do	-	4	5	9
Jeollabuk-do	-	2	-	2
Jeollanam-do	-	4	-	4
Gyungsangbuk-do	-	2	-	2
Gyungsangnam-do	-	4	1	5
Jeju	-	-	-	-
Total	21 <sup>*</sup>	332	95	448
		427		

\* (Airplane) 4 flight attendants, 8 passengers (12 total)

(Community) 4 healthcare professionals, 1 quarantine officer, 1 customs officer, 1 limousine taxi driver, 1 family member, 1 wheelchair assistant (9 total)



Appendix  
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MERS Fact Sheet (Korean)

# 메르스 바로 알기

Middle East Respiratory Syndrome, MERS

## 메르스란?



신종 코로나바이러스  
(MERS-CoV)에 의한  
급성호흡기질환을  
말합니다.

### 1 증상



발열



기침



호흡곤란



인후통



구토, 설사

### 2 잠복기

2~14일 정도로 추정

## 감염경로



### 1 낙타와 접촉

### 2 생 낙타유 섭취

### 3 메르스 환자와 직접 또는 간접한 접촉

## 감염 증상 신고

### ☒ 메르스 의심환자란?

#### 1. 발열과 호흡기증상(기침, 호흡곤란 등)이 있으면서

- 증상이 나타나기 전 14일 이내에 중동지역\*을 방문한 자
- 메르스 의심환자가 증상이 있는 동안 밀접하게 접촉한 자

#### 2. 발열 또는 호흡기증상(기침, 호흡곤란 등)이 있고, 메르스 확진환자가 증상이 있는 동안 밀접하게 접촉한 자

\*아라비아반도 및 그 인근 국가(지역):

바레인, 이라크, 이란, 이스라엘, 요르단, 쿠웨이트, 레바논, 오만, 카타르, 사우디아라비아, 시리아, 아랍에미리트, 예멘



보건복지부  
질병관리본부

## 중동 국가 여행자 메르스 감염 예방 수칙

### 시기

### 예방법



여행 전

- 65세 이상, 어린이, 임산부, 암투병자 등 면역저하자, 당뇨, 고혈압, 심장질환과 같은 기저질환이 있는 경우 여행 자제



여행 중



- 여행 중 농장 방문을 자제하고, 낙타접촉, 낙타 생고기, 생낙타유(Camel milk) 섭취를 피하기



- 사람이 많이 붐비는 장소 방문 가급적 자제 (부득이한 경우 마스크 착용)

- 발열이나 호흡기 증상이 있는 사람과 접촉 피하기



- 물과 비누로 자주 손 씻기
- 비누가 없으면 알코올 손소독제로 손 소독



- 기침, 재채기를 할 경우 옷소매로 입과 코를 가리기
- 호흡기 증상이 있는 경우 마스크 착용



- 씻지 않은 손으로 눈, 코, 입을 만지지 않기



여행 후

- 중동지역 여행 후 14일 이내에 발열과 호흡기 증상(기침, 호흡곤란 등)이 있을 경우, **의료기관 가지 말고** 먼저 질병관리본부 콜센터 **1339** 로 전화하세요.



보건복지부  
질병관리본부

Appendix  
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**Nationally Designated Negative Pressure Wards  
(as of Sep. 13, 2018)**

	Province	Hospital Name	Single Bed Rooms	Shared Rooms (Capacity* Number of Rooms)	Total Wards (Total Beds)
1	Seoul	National Medical Center	4	5*3	7(19)
2		Seoul National University Hospital	7	-	7(7)
3		Seoul Medical Center	10	-	10(10)
4		Chung-ang University Hospital	4	-	4(4)
5		Hanil General Hospital	3	-	3(3)
6	Busan	Pusan National University Hospital	5	-	5(5)
7		Busan Medical Center	5	-	5(5)
8	Daegu	Kyungpook National University Hospital	5	-	5(5)
9		Daegu Medical Center	1	2*2	3(5)
10	Incheon	Incheon Medical Center	7	-	7(7)
11		Gachon University Gil Medical Center	5	-	5(5)
12		Inha University Hospital	4	-	4(4)
13	Gwangju	Chosun University Hospital	5	-	5(5)
14		Chonnam National University Hospital	7	-	7(7)
15	Daejeon	Chungnam National University Hospital	8	-	8(8)
16	Ulsan	Ulsan University Hospital	5	-	5(5)
17	Gyeonggi-do	Myongji Hospital	7	2*2	9(11)
18		Korean Armed Forces Capital Hospital	8	-	8(8)
19		Seoul National University Bundang Hospital	9	-	9(9)
20	Gangwon-do	Kangwon National University Hospital	3	-	3(3)
21		Gangneung Medical Center	1	2*2	3(5)
22	Chungcheongbuk-do	Chungbuk National University Hospital	2	2*1, 3*2	5(10)
23	Chungcheongnam-do	Dankook University Hospital	7	-	7(7)
24	Jeollabuk-do	Chonbuk National University Hospital	4	4*1	5(8)
25	Jeollanam-do	Mokpo National Hospital	2	4*2	4(10)
26	Gyung-sangbuk-do	Dongguk University Gyeongju Hospital	1	2*2	3(5)
27	Gyung-sangnam-do	Gyeongsang National University Hospital	1	2*3	4(7)
28	Jeju	Jeju National University Hospital	7	2*1	8(9)
Total			137	21(59)	158(196)

Appendix  
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## Domestic and Overseas MERS Case Overview

### □ Total Cases

- From 2012 to June 30, 2018, there were a total of 2,229 MERS cases (based on WHO reports), mainly in the Middle East (Arabian Peninsula and surrounding areas)

\* 5 cases in Kuwait

### □ Overseas Cases (as of Sept. 8, 2018, based on infected countries, not reporting countries)

- Total of 116 cases in 2018, 30 deaths in 2018

\* 114 cases in Saudi Arabia (30 deaths), 1 in Oman, 1 in UAE

< Monthly Case Report by Country >

(Unit: Persons)

	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Most Recent	2016 Total Cases	2017 Total Cases
Total	116	23	23	19	9	14	10	7	7	4	–	252	250
Saudi Arabia	114	23	23	18	9	13	10	7	7	4	Sep. 2018	243	238
Qatar	0	–	–	–	–	–	–	–	–		May 2017	2	3
UAE	1	–	–	–	–	1	–	–	–		May 2018	3	6
Oman	1	–	–	1	–	–	–	–	–		Mar. 2018	3	3
Kuwait	0	–	–	–	–	–	–	–	–		Aug. 2016	1	0

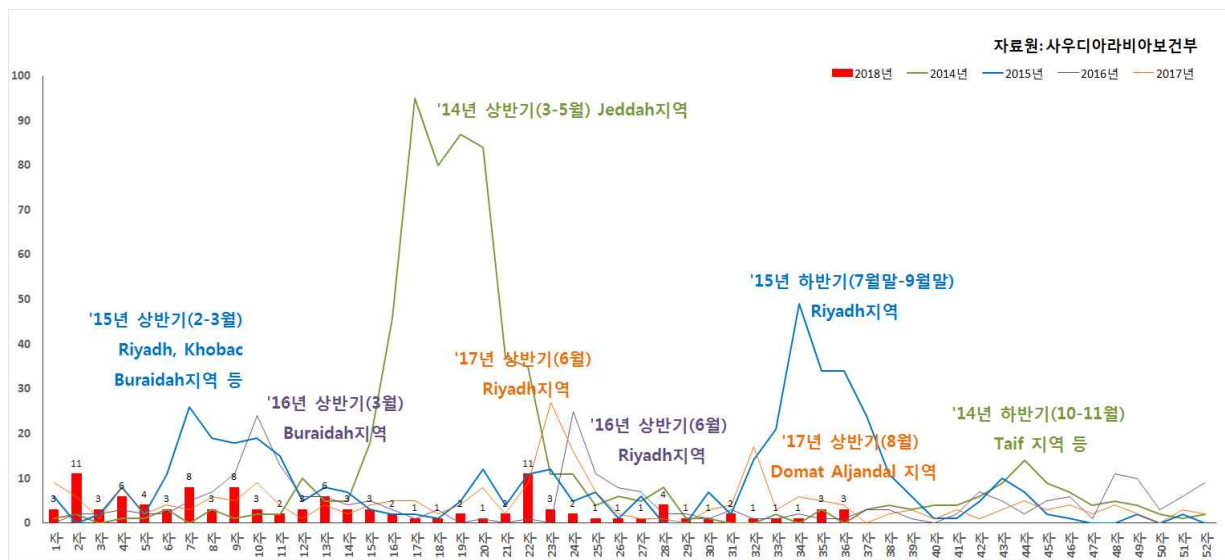


## □ Cases in Saudi Arabia

- Total of 114 cases in 2018, 30 deaths

< Saudi Arabia Monthly Case Report> (Unit: Persons)

		Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2018	Total	114	23	23	18	9	13	10	7	7	4	-	-	-
	Primary Infection	88	21	17	14	8	6	6	5	7	4	-	-	-
	Secondary Infection	26 <sup>1)</sup>	2	6 <sup>2)</sup>	4	1	7 <sup>3)</sup>	4 <sup>3)</sup>	2	-	-	-	-	-
2017		238	24	19	18	17	17	59	6	33	11	11	15	8
2016		243	7	20	57	15	4	46	12	8	9	14	20	31



Saudi Arabia Weekly Case Report (2014 – Sept. 8, 2018)

□ Domestic Cases (Jan. 1, 2016 – Sept. 13, 2018)

(Unit : Cases, Persons)

Year	Reported Cases	Suspected Cases	Confirmed Cases
2016	850	200	0
2017	1,248	220	0
Jan. 1, 2018 – Current	1,108	205*	1

\* Of the suspected cases, 11 were contacts of the confirmed case