وزارة الصحة
Ministry of Health

Weekly Monitor MERS-CoV

Volume 2 Issue 26 Tuesday 28 June 2016

Current Event

MERS Outbreak at KKUH

During the period between 14 and 26 June, 2016 a total of 28 cases of MERS were reported from King Khalid University Hospital (KKUH), Riyadh. Out of the total cases, 7 (25%) were symptomatic.

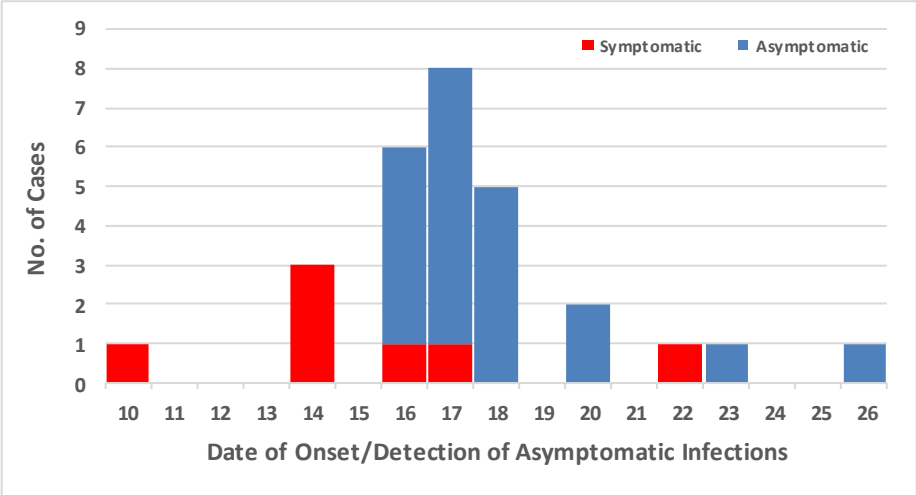
Editorial Notes

A single primary case of MERS was seen at KKUH resulted in 27 secondary cases: 15 Healthcare Workers (HCWs), 7 in-patients, and 5 household contacts *(Figure1)*. The ratio of asymptomatic MERS infections to the symptomatic among HCWs, in-patients was 4, and 2.5 for household contacts *(Table1)*. In other words, 80% of the infected HCWs were asymptomatic.

There has been a recent increase in reports of asymptomatic or mild MERS-CoV infection. Data from Ministry of Health (MoH) showed that the proportion of asymptomatic infections increased from 10% (2012-July,2015), to 57% by the end of 2015. The increased proportion of asymptomatic infections could be attributed to increased number and improved criteria for detection of contacts and/or improved swabbing techniques. According to MoH guidelines all exposed HCWs should be screened for the virus. It is difficult to rule out presence of a super spreader and increased infectiousness of the virus. The increased proportion of asymptomatic MERS may indicate that the virus has lost some of its virulence. However, it is hard to estimate the proportion of asymptomatic patients among infected individuals because there is no perfect method for defining the exposed contacts. In addition, lack of serological testing could have resulted in missing some other asymptomatic infections.

There was delay in diagnosing the primary case of MERS who happened to be a female admitted for management of a diabetic septic foot. Conceivably, the diagnosis of MERS was least expected. Nevertheless, the large number of secondary infections within a short period of time in a well-defined health institution points out that there is a clear gap in infection prevention and control in that institution.

Figure 1: Outbreak of MERS in Riyadh Region (June, 2016)



Cases of MERS-CoV: International Week (IW) No. 25: 19 – 25 June 2016

Total	**11**
Symptomatic (S)	8
Asymptomatic (AS)	3
Healthcare worker (S)	2
Healthcare Worker (AS)	2

Table 1: Distribution of Symptomatic and Asymptomatic MERS Cases

	Symptomatic (S)	Asymptomatic (AS)	Total	AS/S Ratio
Healthcare Worker	3	12	15	4
Household Contact	1	4	5	4
In-Patient	2	5	7	2.5
Primary	1	0	1	0
Total	7	21	28	3

Recent Publications:

Payne DC, Iblan I, Rha B, Alqasrawi S, Haddadin A, Al Nsour M, Alsanouri T, Ali SS, Harcourt J, Miao C, Tamin A, Gerber SI, Haynes LM, Al Abdallat MM. Persistence of Antibodies against Middle East Respiratory Syndrome Coronavirus. Emerg Infect Dis. 2016 Oct 15;22(10). doi: 10.3201/eid2210.160706.

MERS-CoV in KSA 2016*

Region	*Case*	*Primary*	*Secondary*	*U.C.*
Riyadh (6)	59	22	35	2
Qassim	36	10	23	3
Jeddah (3)	8	6	1	1
Hail	7	6	0	1
Taif (1)	6	5	1	0
Najran (1)	6	5	0	1
Asir	5	4	1	0
Al-Ahsaa	3	3	0	0
Madinah	3	3	0	0
Eastern Region	2	2	0	0
Al-Baha	1	0	0	1
Bisha	1	1	0	0
Tabuk	1	1	0	0
Makkah	0	0	0	0
Al-Joaf	0	0	0	0
Jazan	0	0	0	0
Northern Borders	0	0	0	0
Qunfotha	0	0	0	0
Hafr Al-Batin	0	0	0	0
Qurayyat	0	0	0	0
Total	*138*	*68*	*61*	*9*

Case: Confirmed Symptomatic. **U.C. :** Unclassified cases
***Period:** Form 3 Jan to 25 June 2016
Regions with new cases of this week are highlighted in yellow.