



WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit
Ministry of Health

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Vol. 39 No.43

20th – 26th October 2012

Novel Corona Virus Infection

Background

World Health Organization (WHO) has received reports of nine cases of human infection with a novel corona virus since April 2012. All patients were severely ill and five have died. So far, cases have been reported from Qatar, Saudi Arabia and Jordan.

The two Qatari patients are not linked. Both had severe pneumonia and acute renal failure. Both are now recovering.

A total of five confirmed cases have been reported from Saudi Arabia. The first two cases are not linked to each other one of these has died. Three other confirmed cases are epidemiologically linked and occurred in one family living within the same household and two of these have died.

Two confirmed cases have been reported in Jordan. Both of these patients have died. These cases were discovered through testing of stored samples from a cluster of pneumonia cases that occurred in April 2012.

The two clusters (Saudi Arabia, Jordan) raise the possibility of limited human-to-human transmission or, alternatively, exposure to a common source.

Introduction

Human Corona viruses were first identified in the mid 1960s and are named for the crown-like projections on the surface of the virus. They are a group of viruses causing respiratory infections in humans and animals. There are 3 main sub-groups of Corona viruses, known as alpha, beta and gamma.

This is the first time this particular strain of corona virus has been identified. It was first identified in the Netherlands and the virus phylogenetic analysis indicates that the nearest relatives are bat corona viruses. As it has only been recently described, and only a handful of cases have been reported, there is limited information on clinical impact, transmission and severity at this stage.

Source of infection

Exact source of infection is not known at this stage closest relatives are bat coronaviruses, as mentioned before. New infections may occur from a mutation to an existing virus which causes it to behave differently in the type or seriousness of infection caused. Some new infections may be caught from infectious agents, such as bacteria or viruses, circulating in the animal population (zoonoses). Certain infections may cause only mild infection in an animal species but more serious infections in people (and vice versa).

Transmission

Coronaviruses are typically spread like other respiratory infections such as influenza. Transmission appears to be very limited although this based on only a very small number of confirmed cases. However, if it were very contagious, there would have been a higher number of cases than at present.

Symptoms

The virus has so far only been identified in a small number of cases of acute, serious respiratory illness who presented with fever, cough, shortness of breath, and breathing difficulties. At this point it is not clear whether these cases are typical of infection with this virus or whether it could be circulating more widely, but causing a milder illness, and only very rarely causing a severe illness.

Diagnosis

The main test for this particular coronavirus is a screening PCR test followed by a more specific confirmatory test.

Treatment

There is no enough information available as yet to make any specific treatment recommendations. However, acute respiratory support for those with severe symptoms and who have been hospitalised would be advised.

Prevention

A vaccine is not available. From the limited information available so far, there is no sufficient evidence of person to person transmission. However, some general

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measures that would be prudent and help prevent the acquisition of any respiratory illness. Therefore, avoid close contact, when possible, with anyone who shows symptoms of illness (coughing and sneezing) and maintain good hand hygiene.

But as with any newly identified virus that may be associated with severe illness, it is better to err on the side of caution. All infection control precautions to prevent the spread of this virus are therefore being taken for any case with a confirmed diagnosis. This includes isolation of the patient, barrier nursing and making sure that all staff wear the appropriate protective equipment.

Coronaviruses are fairly fragile, and outside of the body their survival time is only around 24 hours. They are easily destroyed by usual detergents and cleaning agents.

Travelling to Middle East

Given that there have only been a small number of confirmed cases worldwide, people planning to travel to the Middle East can continue with their plans. Travel advices might change in future with the availability of new evidence.

Case Definitions

In accordance with new data regarding geographic spread of the virus, case definitions have been coined as follows

Patient Under Investigation

- A person with an acute respiratory infection, which may include fever (≥ 38°C , 100.4F) and cough; AND
- suspicion of pulmonary parenchymal disease (e.g., pneumonia or acute respiratory distress syndrome based on clinical or radiological evidence of consolidation); AND
- travel to or residence in the Arabian Peninsula or neighboring countries where infection with novel corona virus has recently been reported and where transmission could have occurred; AND
- not already explained by any other infection or etiology, including all clinically indicated tests for community-acquired pneumonia according to local management guidelines.

Probable Case

- A person fitting the definition above of a “Patient Under Investigation” with clinical, radiological, or histopathological evidence of pulmonary parenchyma disease (e.g. pneumonia or ARDS) but no possibility of laboratory confirmation either because the patient or samples are not available or there is no testing available for other respiratory infections, AND
- close contact with a laboratory confirmed case, AND **not already explained by any other infection or etiology, including all clinically indicated tests for community-acquired pneumonia according to local management guidelines.**

Confirmed Case

A person with laboratory confirmation of infection with the novel corona virus.

Sources

Novel coronavirus 2012 , available from http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1317136202755
 Case Definitions and Guidance, available from <http://www.cdc.gov/coronavirus/ncv/case-def.html>

Compiled by Dr. Madhava Gunasekera of the Epidemiology Unit

**Table 3 : Water Quality Surveillance
 Number of microbiological water samples - September/ 2012**

District	MOH areas	No: Expected *	No: Received
Colombo	12	72	56
Gampaha	15	90	16
Kalutara	12	72	13
NHIS	2	12	11
Kandy	23	138	26
Matale	12	72	8
Nuwara Eliya	13	78	69
Galle	19	114	NR
Matara	17	102	00
Hambantota	12	72	24
Jaffna	11	66	00
Kilinochchi	4	24	14
Manner	5	30	23
Vavuniya	4	24	28
Mullatvu	4	24	0
Batticaloa	14	84	56
Ampara	7	42	10
Trincomalee	11	66	NR
Kurunegala	23	138	117
Puttalam	9	84	20
Anuradhapura	19	114	1
Polonnaruwa	7	42	17
Badulla	15	90	63
Moneragala	11	66	104
Rathnapura	18	108	0
Kegalle	11	66	6
Kalmunai	13	78	0

* No of samples expected (6 / MOH area / Month)
 NR = Return not received

Invasive Bacterial Disease surveillance in Sentinel Sites- 3rd quarter 2012

No. of suspected meningitis cases	53
No. of probable meningitis cases	7
Percentage (%) of CSF samples tested positive for organisms	0%
No. of children who met the pneumonia case definition	135
Percentage (%) of Pneumonia cases with positive blood cultures	0%
No. of sepsis cases	15
Percentage (%) of Sepsis cases with positive blood cultures	0%
Source-LRH, Epidemiology Unit	

Rota virus surveillance in Sentinel Sites -3rd quarter 2012

Number of acute diarrhoea hospitalizations in children <5 years	300
Number of stool specimen collected	171
Number of stool specimen tested positive for rotavirus	54
Percentage (%) of stool specimen tested positive for rotavirus	31.58%
Source-MRI, Epidemiology Unit	

Table 1: Vaccine-preventable Diseases & AFP

13th – 19th October 2012 (42nd Week)

Disease	No. of Cases by Province									Number of cases during current week in 2012	Number of cases during same week in 2011	Total number of cases to date in 2012	Total number of cases to date in 2011	Difference between the number of cases to date in 2012 & 2011
	W	C	S	N	E	NW	NC	U	Sab					
Acute Flaccid Paralysis	01	00	00	00	00	00	00	00	00	01	01	65	75	- 13.3 %
Diphtheria	00	00	00	00	00	00	00	00	00	-	-	-	-	-
Measles	00	00	00	00	00	01	00	00	00	01	01	52	112	- 53.6 %
Tetanus	00	00	00	00	00	00	00	00	00	00	02	11	24	- 54.2 %
Whooping Cough	00	00	00	00	00	00	00	00	00	00	01	82	46	+ 41.8 %
Tuberculosis	51	40	158	15	36	07	01	10	19	327	252	7150	7527	- 05.0 %

Table 2: Newly Introduced Notifiable Disease

13th – 19th October 2012 (42nd Week)

Disease	No. of Cases by Province									Number of cases during current week in 2012	Number of cases during same week in 2011	Total number of cases to date in 2012	Total number of cases to date in 2011	Difference between the number of cases to date in 2012 & 2011
	W	C	S	N	E	NW	NC	U	Sab					
Chickenpox	13	08	08	03	01	13	05	02	10	64	73	3720	3567	+ 04.3 %
Meningitis	01 KL=1	04 ML=3 NE=1	01 GL=1	01 JF=1	01 BT=1	04 KN=3 PU=1	01 AP=1	00	03 KG=3	16	15	681	724	- 05.9 %
Mumps	08	04	01	01	04	03	03	05	04	33	69	3904	2632	- 48.3 %
Leishmaniasis	00	00	12 HB=9 MT=3	00	00	01 KN=1	04 AP=4	00	00	17	17	930	670	+ 38.8 %

Key to Table 1 & 2

Provinces: W: Western, C: Central, S: Southern, N: North, E: East, NC: North Central, NW: North Western, U: Uva, Sab: Sabaragamuwa.
 DPDHS Divisions: CB: Colombo, GM: Gampaha, KL: Kalutara, KD: Kandy, ML: Matale, NE: Nuwara Eliya, GL: Galle, HB: Hambantota, MT: Matara, JF: Jaffna, KN: Killinochchi, MN: Mannar, VA: Vavuniya, MU: Mullaitivu, BT: Batticaloa, AM: Ampara, TR: Trincomalee, KM: Kalmunai, KR: Kurunegala, PU: Puttalam, AP: Anuradhapura, PO: Polonnaruwa, BD: Badulla, MO: Moneragala, RP: Ratnapura, KG: Kegalle.

Data Sources:

Weekly Return of Communicable Diseases: Diphtheria, Measles, Tetanus, Whooping Cough, Chickenpox, Meningitis, Mumps.

Special Surveillance: Acute Flaccid Paralysis. Leishmaniasis is notifiable only after the General Circular No: 02/102/2008 issued on 23 September 2008.

Influenza Surveillance in Sentinel Hospitals - ILI & SARI									
Month	Human						Animal		
	No Received	Infl A untyped	Infl B	A(H1N1)pdm09	A(H3N2)	RSV	Pooled samples	Serum Samples	Positives
September	391	7	28	12	4	9	460	1629	0

Source: Medical Research Institute & Veterinary Research Institute

Dengue Prevention and Control Health Messages

To prevent dengue, remove mosquito breeding places in and around your home, workplace or school once a week.

Table 4: Selected notifiable diseases reported by Medical Officers of Health
13th – 19th October 2012 (42nd Week)

DPDHS Division	Dengue Fever / DHF*		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptospirosis		Typhus Fever		Viral Hepatitis		Human Rabies		Returns Received
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	%
Colombo	220	8293	7	173	0	8	4	194	2	46	7	173	0	5	1	103	0	5	92
Gampaha	50	6534	3	221	0	15	1	56	0	41	3	221	0	21	4	277	0	0	47
Kalutara	37	2363	7	232	0	4	2	44	0	28	7	232	0	4	1	32	0	2	85
Kandy	43	2091	1	62	0	2	0	22	0	56	1	62	1	106	1	97	0	0	78
Matale	19	471	0	39	0	5	0	12	0	32	0	39	0	3	1	33	0	0	100
Nuwara	6	296	1	32	0	3	0	26	0	8	1	32	0	60	0	18	0	1	85
Galle	13	1320	2	110	0	6	2	15	0	17	2	110	0	64	0	3	0	0	84
Hambantota	20	506	2	67	0	3	1	7	0	30	2	67	1	52	1	21	0	0	75
Matara	47	1521	3	161	0	8	0	19	0	28	3	161	0	70	1	125	0	0	100
Jaffna	50	469	0	2	0	14	3	318	0	82	0	2	2	257	1	18	0	1	92
Kilinochchi	0	78	0	4	0	2	0	32	0	43	0	4	0	30	0	4	0	1	25
Mannar	0	126	0	23	0	4	0	39	0	17	0	23	0	42	0	2	0	0	20
Vavuniya	1	80	0	18	0	21	0	12	0	20	0	18	0	3	0	1	0	0	50
Mullaitivu	0	22	0	3	0	1	1	12	0	3	0	3	0	5	0	1	0	0	40
Batticaloa	11	627	0	8	1	3	1	16	0	307	0	8	0	0	0	8	0	4	79
Ampara	3	130	0	27	0	3	0	6	0	12	0	27	0	0	0	3	0	0	57
Trincomalee	2	134	0	37	0	2	0	16	0	13	0	37	0	18	0	4	0	0	75
Kurunegala	84	2380	4	132	0	16	2	88	2	38	4	132	0	30	3	128	0	4	92
Puttalam	37	1222	0	38	0	8	0	12	0	10	0	38	0	15	1	6	0	2	67
Anuradhapu	2	327	0	78	0	7	0	13	0	21	0	78	0	23	0	57	0	1	74
Polonnaruw	6	217	3	48	0	2	0	4	0	121	3	48	0	3	0	40	0	1	57
Badulla	13	322	0	36	0	4	1	50	0	3	0	36	2	107	0	42	0	0	76
Monaragala	2	232	0	62	0	6	1	24	0	7	0	62	0	75	0	168	0	2	73
Ratnapura	34	3441	4	272	0	25	1	48	0	12	4	272	1	39	2	113	0	2	78
Kegalle	33	2351	3	156	0	9	0	24	0	10	3	156	2	59	16	526	0	0	91
Kalmune	2	182	0	9	0	1	1	7	0	86	0	9	0	1	0	10	0	3	54
SRI LANKA	735	35735	40	2050	01	182	21	1116	04	1091	40	2050	9	1092	33	1840	00	29	77

Source: Weekly Returns of Communicable Diseases WRCD).

*Dengue Fever / DHF refers to Dengue Fever / Dengue Haemorrhagic Fever.

**Timely refers to returns received on or before 19th October, 2012 Total number of reporting units 329. Number of reporting units data provided for the current week: 267

A = Cases reported during the current week. B = Cumulative cases for the year.

PRINTING OF THIS PUBLICATION IS FUNDED BY THE WORLD HEALTH ORGANIZATION (WHO).

Comments and contributions for publication in the WER Sri Lanka are welcome. However, the editor reserves the right to accept or reject items for publication. All correspondence should be mailed to The Editor, WER Sri Lanka, Epidemiological Unit, P.O. Box 1567, Colombo or sent by E-mail to chepid@sltnet.lk.

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