



WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit
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Zika Virus Infection

Zika virus disease is an emerging mosquito-borne viral disease that was first identified in Uganda in 1947.

Transmission

Zika virus is a member of family Flaviviridae and it is transmitted to humans primarily by mosquitoes of Genus *Aedes* (*Aedes aegypti*, *Aedes albopictus* etc.). These are the same mosquitoes that spread dengue, chikungunya and yellow fever. *Aedes* mosquitoes are daytime biters who prefer to bite humans (Anthropophilic) and live both indoors and outdoors near people. It causes a mild illness known as Zika fever, Zika or Zika disease.

Incubation Period

Incubation period of Zika virus is not clear, but is likely to be few days to a week. Zika virus usually remains in blood of an infected person for few days but it can be found longer in some people.

Currently Affected Countries

Some countries of South America (Brazil, Colombia, Paraguay, Venezuela, Suriname, French Guiana, Ecuador, Guyana, Bolivia); Central America (El Salvador, Guatemala, Mexico, Panama, Honduras); Caribbean (Martinique, Saint Martin, Puerto Rico, Haiti, Barbados, Guadeloupe) and Africa (Cape Verde) had reported local transmission of Zika virus in 2015 and 2016.

Symptoms

Only about 20% of people infected with Zika virus will develop the clinical disease. The most common symptoms are acute onset of fever, maculo-papular rash, arthralgia and non purulent conjunctivitis. Other common symptoms include headache, myalgia and retro-orbital pain. The symptomatic disease is generally mild and lasting for 2-7 days. Severe illness requiring hospitalization is uncommon and deaths are very rare.

Zika viral infection and pregnancy

Pregnant women can be infected with Zika virus in any trimester. There is no evidence to suggest that the pregnant women are more susceptible to Zika virus infection or experience more severe disease. Some countries have reported increase incidence of microcephaly (a condition in which a baby's head is smaller than expected when compared to babies of the same sex and age) and Guillain-Barre Syndrome during outbreaks. Health authorities are currently investigating possible potential link between Zika virus in pregnant women and microcephaly in their babies. However, more investigation and research is needed to confirm the possible association. Women who are pregnant (in any trimester) or women who planning to become pregnant are advised to consider postponing travel to any area where Zika virus transmission is ongoing. If she must travel to one of these areas, strictly follow steps to prevent mosquito bites during the trip.

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WEEKLY SRI LANKA 2016

Laboratory Diagnosis and Conformation

Zika virus can be diagnosed by RT-PCR test (Real Time- Polymerase Chain Reaction) and virus isolation from blood samples. There is no widely available test to detect Zika infection. Because it is closely related to dengue and yellow fever, it may cross-react with antibody tests for those viruses. Ministry of Health has established diagnostic facilities (PCR test) for Zika virus at MRI.

Following should be considered when sending sample to MRI.

1. Request: Very brief history is mandatory highlighting followings

- Clinical features of the patient.
- Travel history within previous 2 weeks
- Date and the day of the illness when blood was collected
- Any other investigations done to detect other viral infections such as dengue or chikungunya

2. Sample collection, storage and transport,

- Sample should be collected within the first five days of illness (early sample).
- Blood should be collected into EDTA tube or plain red top tube.
- Minimum blood volume is 2ml.
- Heparinized or very low volume samples (less than 2 ml) may not be accepted for testing.
- Specimen should be transported to the laboratory at 2 to 8°C as soon as possible.
- In a delay is unavoidable, samples may be stored in the refrigerator at 2 to 8°C up to 2 days.
- Late samples (after day 7 of illness) may not be accepted for the Zika virus PCR test.
- Fill all the other fields in the request form very clearly and container should be properly labeled.
- Please contact Virology department of MRI to clarify any matter in sample collection, storage and transportation.

[Source: Zika virus Real Time PCR Test (qualitative assay); Brief guideline for sent out samples; MRI]

Treatment

Zika virus disease is usually mild and does not require any specific treatment. There is no vaccine or anti viral medication currently available to treat the Zika virus disease.

Treatment is generally supportive and based on symptomatic management;

- Get adequate rest
- Drink adequate fluid to prevent dehydration

- Take Paracetamol to relieve fever and pain
- Taking aspirin and other non-steroidal anti-inflammatory drugs (NSAIDs) is not recommended.

Patients with mild illness can be managed at OPD or at home according to the decision of the physician who is attending for care of the patient and should be provided supportive symptomatic treatment and advice. Patients with severe illness should be admitted for inpatient care only after considering the severity of the clinical situation of individual patient.

Necessary investigations should be done to rule out the possibility of Dengue because of both conditions share some similar clinical manifestations.

Prevention

Zika virus can be found in blood during the first week of infection. Prevention and control of disease relies on reducing mosquitoes through source reduction and avoiding contact between mosquitoes and people. All measures should be taken to keep environment clean to avoid breeding of Aedes mosquitoes.

All travellers to affected areas, showing symptoms compatible with Zika virus disease within 2 weeks of returning from an affected area should consult their medical practitioner for evaluation of the condition. Medical practitioners should inquire the travel history of the suspected cases of Zika viral disease.

People should take personal protective measures to avoid mosquito bites such as usage of mosquito repellents; wearing clothes that cover as much of the body; using physical barriers such as screens, closed doors and windows and sleeping under mosquito nets.

Pregnant women who are planning to travel to affected areas should consider postponing their visit, considering risk and benefit.

Patients should be advised to use bed nets in order to prevent the spread of disease among other patients in the wards. Hospital premises should be kept clean and fogged in regular basis (at least once in a week) where the suspected or diagnosed Zika patients are being treated

Sources

1. Zika virus, available at <http://www.cdc.gov/zika/>
2. Zika virus, available at <http://www.who.int/mediacentre/factsheets/zika/en/>

Compiled by Dr. Alinda Perera of the Epidemiology Unit

Table 1: Selected notifiable diseases reported by Medical Officers of Health 27th - 04th March 2016 (10th Week)

RDHS Division	Dengue Fever		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptospirosis		Typhus Fever		Viral Hepatitis		Human Rabies		Chickenpox		Meningitis		Leishmaniasis		WRCD	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	T*	C**
Colombo	201	3736	3	29	0	0	1	12	1	1	10	37	0	2	0	8	0	0	7	85	0	8	0	0	75	75
Gampaha	75	1439	1	10	0	4	0	9	0	0	9	49	0	5	0	12	0	0	8	100	1	17	0	2	73	73
Kalutara	50	659	1	18	0	1	1	10	2	7	15	111	0	4	2	8	0	0	7	63	0	14	0	0	79	79
Kandy	38	558	2	29	0	8	0	8	2	13	0	51	3	18	2	21	0	0	5	30	2	12	0	4	87	87
Matale	7	98	0	8	0	1	0	4	0	1	3	35	0	8	0	6	0	0	1	9	0	18	0	11	77	77
NuwaraEliya	8	73	1	11	0	1	4	15	0	8	0	11	2	11	1	3	0	0	1	35	0	6	0	0	10	100
Galle	30	441	0	16	0	3	0	1	0	2	2	85	1	24	0	4	0	0	10	65	1	17	0	1	90	90
Hambantota	9	184	0	11	0	0	0	0	0	34	4	36	0	25	0	10	0	0	7	60	1	4	8	100	75	75
Matara	14	245	1	16	0	1	2	3	0	26	5	34	1	17	0	9	0	0	7	58	1	2	4	66	10	100
Jaffna	43	967	3	57	0	1	2	26	1	14	0	7	22	440	1	4	0	0	13	66	1	7	0	0	10	100
Kilinochchi	1	29	0	11	0	0	0	12	0	0	0	7	0	12	0	0	0	0	0	0	0	3	0	0	25	25
Mannar	3	62	0	2	1	4	1	8	0	1	0	7	1	32	0	0	0	0	0	1	1	1	0	0	80	80
Vavuniya	1	92	0	2	0	0	0	5	1	8	1	9	1	6	0	2	0	0	0	6	0	0	0	2	50	50
Mullaitivu	12	55	0	5	0	0	4	10	0	4	0	8	0	4	0	0	0	0	0	1	1	2	0	4	60	60
Batticaloa	4	190	1	72	0	0	1	6	0	46	0	13	0	4	0	4	0	0	0	13	0	3	0	1	71	71
Ampara	0	50	0	4	0	0	0	0	0	0	0	10	0	0	0	3	0	0	0	9	0	0	0	2	0	0
Trincomalee	12	167	1	15	0	0	0	5	1	1	0	2	0	4	1	21	0	1	8	46	1	3	0	1	83	83
Kurunegala	23	421	4	45	0	4	1	1	0	5	5	42	0	6	1	8	0	1	2	72	0	8	3	22	70	70
Puttalam	8	361	0	11	0	0	0	3	0	0	2	21	0	43	0	0	0	0	2	21	1	10	0	0	54	54
Anuradhapura	7	167	1	22	0	1	0	1	2	20	7	121	0	10	1	8	0	0	5	48	0	10	6	48	53	53
Polonnaruwa	5	111	0	9	0	2	1	8	0	3	1	42	0	1	1	2	0	0	1	20	0	4	4	34	71	71
Badulla	6	131	1	23	2	6	0	2	0	2	2	36	1	19	1	29	0	0	2	38	5	53	0	0	65	65
Monaragala	4	91	3	12	0	1	1	2	0	0	5	84	4	30	5	35	0	1	0	18	1	11	0	7	91	91
Ratnapura	40	375	3	44	1	10	0	10	1	14	9	69	0	7	6	36	0	0	3	39	0	30	0	0	67	67
Kegalle	17	357	1	9	0	6	0	11	1	8	2	55	0	5	0	6	0	0	4	90	5	10	0	0	82	82
Kalmune	13	254	1	19	0	1	0	3	0	5	0	4	0	0	0	0	0	0	1	14	0	5	0	0	62	62
SRILANKA	631	11313	28	510	4	55	19	175	12	223	82	986	36	737	22	239	0	7	94	1007	22	258	25	305	74	74

Source: Weekly Returns of Communicable Diseases (WRCD).

*T=Timeliness refers to returns received on or before 04th March, 2016. Total number of reporting units 339. Number of reporting units data provided for the current week: 254. C**=Completeness
A = Cases reported during the current week. B = Cumulative cases for the year.

Table 2: Vaccine-Preventable Diseases & AFP

27th – 04th March 2016 (10th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2016	Number of cases during same week in 2015	Total number of cases to date in 2016	Total number of cases to date in 2015	Difference between the number of cases to date in 2015& 2016
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	00	00	00	00	00	00	00	02	00	02	00	13	10	+30%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Mumps	01	00	02	01	01	00	00	00	01	06	09	87	70	+24.2%
Measles	01	00	00	01	00	00	00	00	00	02	29	152	273	-44.3%
Rubella	00	00	00	00	00	00	00	00	00	00	00	05	04	+25%
CRS**	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Tetanus	00	00	00	00	00	00	00	00	00	00	00	01	02	-50%
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Japanese Encephalitis	00	00	00	00	00	00	00	00	00	00	00	00	03	-100%
Whooping Cough	00	00	00	00	00	00	00	00	00	00	01	18	16	+12.5%
Tuberculosis	54	00	07	02	04	00	00	00	00	67	251	1652	1699	-3.1%

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.
 RDHS 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, Neonatal Tetanus, Whooping Cough, Chickenpox, Meningitis, Mumps., Rubella, CRS,

Special Surveillance: AFP* (Acute Flaccid Paralysis), Japanese Encephalitis

CRS** =Congenital Rubella Syndrome

AFP and all clinically confirmed Vaccine Preventable Diseases except Tuberculosis and Mumps should be investigated by the MOH

Dengue Prevention and Control Health Messages

Look for plants such as bamboo, bohemia, rampe and banana in your surroundings and maintain them

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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. Prior approval should be obtained from the Epidemiology Unit before publishing data in this publication

ON STATE SERVICE

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