WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit
Ministry of Health, Nutrition & Indigenous Medicine

231, de Saram Place, Colombo 01000, Sri Lanka
Tele: + 94 11 2695112, Fax: +94 11 2696583, E mail: epidunit@sltnet.lk
Epidemiologist: +94 11 2681548, E mail: chepid@sltnet.lk
Web: http://www.epid.gov.lk

WER SRI LANKA 2019

Vol. 46 No. 49 **30th– 06th December 2019**

Invasive Meningococcal Disease (IMD)

Background

A fifty-five year old patient was diagnosed as the development of Invasive Meningococcal Disease (IMD) while being admitted to a local hospital New Zeeland. Under the Epidemiological investigations on travel history, it was found that the patient lived in Australia and travelled to Japan to watch Rugby World Cup at the auditorium at Yokahama, Japan on 26th, 27th October and 1st and2nd December at Tokyo, Japan before travelling to New Zeeland. Shizuoka City Public Health Center has been informed on 12th November of the confirmed case of Invasive Meningococcal Disease (IMD) who was admitted to a local hospital in New Zeeland. The patient had been cured on treatment and travelled back to Australia.

IMD is very rare in Japan but this type of communicable disease outbreak can occur in people gathering at such events. Hence Shizuoka City Public Health Center is conducting epidemiological investigations on this case including contact tracing and facilitating prophylaxis to contacts.

What is Invasive Meningococcal Disease (IMD)?

Meningitis remains a major public health problem globally and it is a devastating disease. Many pathogens (virus and fungi) lead to cause Meningitis but bacterial meningitis is the most occurring disease in prevalence. Meningococcal meningitis, caused by *Neisseria meningitis* bacteria is very important and causes massive epidemics. It is a deadly disease for children less than 5 years. *Neisseria meningitis* only infects humans and there is no animal reservoir. Hence "Defeating meningitis by 2030" was the aim of Eastern Mediterranean and African Regions and has been declared at the World Health Assembly in May 2018.

Signs and Symptoms

"Stiff Neck" is the mostly presenting symptom, followed by high fever, sensitivity to light, confusion, headache and vomiting.

Complications

Brain damage in severe cases leads to loss of hearing or disability in learning in 10 -20

Contents **Page**

% survivors. Deaths of patients (5% -10%) are not preventable even though early and prompt treatment is accessible. Meningococcal septicemia is a severe form of meningococcal disease though it is less common. It is characterized by haemorrhagic rash and rapid circulatory collapse.

Transmission

Transmission occurs through droplets of respiratory and throat secretions of carriers. It facilitates person to person transmissions. People are vulnerable in close and prolonged contact with infected persons such as coughing, sneezing, sharing eating and drinking utensils. The average incubation period is 4 days but vary in between 2 days and 10 days.

Diagnosis

Clinically diagnosis with lumbar puncture testing is the primary diagnosis method. The purulent spinal fluid shows bacteria in microscopic examination. Agglutination test by using PCR (Polymerase Chain Reaction) is done for confirmation of bacteria. Subgroup identification with antibiotic resistance is practised to define control measures.

Treatment

It could be a fatal disease and considered as a medical emergency. It can be treated by using one of the antibiotics in the range of antibiotics; penicillin, ampicillin, chloramphenicol and ceftriaxone due to antibiotic sensitivity test.

Prevention and control
Vaccines

Three types of potent meningococcal vaccines are available for protection. Conjugate vaccines and protein -based vaccines are used for routine immunization schedule. People at risk can use vaccination as a protection method. Meningococcal polysaccharide vaccines are effective for outbreak control and prevention among high-risk groups, such as travellers to countries where the disease is epidemic, Hajj pilgrims and individuals with underlying immune dysfunctions

Chemoprophylaxis

Prophylaxis is beneficial to prevent the occurrence of secondary cases by eliminating carriers with *Neisseria meningitis.* Though it is a control measure, it is limited to use under special circumstances due to its limited effectiveness. Antibiotics prophylaxis is used for close contacts and ciprofloxacin is the antibiotic of choice and ceftriaxone is an alternative drug. Risk of transmission has been decreased on prompt chemoprophylaxis treatment.

Surveillance

Good surveillance is necessary from case detection, investigation to laboratory confirmation. It helps to detect and confirm outbreaks, monitor the incidence and trends, estimate the disease burden, monitor antibiotic resistance and evaluate meningitis control strategies including vaccination programmes.

References: https://www.who.int/emergencies/diseases/meningitis/en/

Fact Sheet, Meningococcal Meningitis, Epidemiology Unit, Ministry of Health

Compiled by
Dr Hathshya M Munasingha
Consultant Epidemiologist
Epidemiology Unit, Ministry of Health

Table 1: Selected notifiable diseases reported by Medical Officers of Health 23rd – 29th Nov 2019 (48th 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	793	17435	2	58	0	13	0	24	2	69	14	264	0	12	0	11	0	0	10	438	3	51	0	6	**50**	**100**
Gampaha	487	13801	0	46	0	9	0	4	0	32	0	140	0	5	0	10	0	2	4	419	0	29	0	166	**48**	**98**
Kalutara	239	7442	1	74	0	7	1	23	1	69	24	612	0	8	0	6	0	2	12	658	1	104	0	3	**63**	**100**
Kandy	500	7447	1	98	0	13	2	7	0	31	5	97	2	91	0	6	0	3	9	275	1	66	4	53	**65**	**100**
Matale	212	1647	3	31	0	4	0	1	0	6	3	51	0	6	0	9	0	2	1	88	0	5	6	270	**59**	**100**
NuwaraEliya	22	348	1	100	0	2	0	10	0	11	4	63	0	80	0	9	0	0	3	146	1	60	0	1	**27**	**100**
Galle	208	6518	0	53	1	8	0	3	0	7	14	470	4	57	1	51	0	2	3	439	0	53	0	5	**61**	**99**
Hambantota	60	1854	2	39	0	5	0	4	0	12	15	206	2	133	0	4	0	1	10	301	2	46	30	764	**73**	**100**
Matara	88	3699	2	40	0	4	1	8	0	20	24	497	0	44	0	21	0	1	7	320	0	17	8	577	**60**	**100**
Jaffna	931	5498	7	378	0	13	0	37	0	110	1	38	18	446	0	6	0	1	0	274	0	23	0	0	**21**	**93**
Kilinochchi	28	255	6	106	0	2	1	16	0	12	1	20	0	29	0	1	0	0	0	11	0	8	0	15	**52**	**100**
Mannar	12	141	1	6	0	2	0	13	0	1	0	1	0	9	0	0	0	0	0	1	0	7	0	1	**54**	**100**
Vavuniya	69	566	1	38	0	12	1	30	0	23	1	57	0	5	0	0	0	0	2	86	0	12	0	4	**59**	**100**
Mullaitivu	14	196	1	22	0	1	2	15	0	5	0	27	0	8	0	0	0	0	0	16	0	7	0	6	**29**	**99**
Batticaloa	142	1828	5	235	0	2	1	14	0	43	1	50	0	1	0	0	0	1	8	273	1	31	0	0	**51**	**100**
Ampara	15	307	0	80	0	4	0	0	0	17	3	57	0	2	0	11	0	0	3	313	1	24	0	4	**58**	**100**
Trincomalee	196	1599	1	49	0	0	0	0	0	63	0	23	0	20	0	5	0	1	2	238	1	12	0	5	**34**	**98**
Kurunegala	110	2551	1	77	0	23	0	6	1	31	12	304	0	30	0	24	0	4	15	594	0	95	11	778	**61**	**100**
Puttalam	125	1770	0	33	1	5	0	1	0	19	7	54	0	16	0	3	0	0	0	131	0	51	1	10	**62**	**100**
Anuradhapura	67	888	7	65	0	12	0	5	0	13	14	166	3	40	0	25	0	2	10	495	3	93	0	523	**43**	**100**
Polonnaruwa	27	453	0	30	0	3	0	3	1	6	6	85	0	4	0	17	0	2	4	301	0	25	9	300	**59**	**99**
Badulla	126	1497	2	91	0	12	0	10	0	89	3	227	0	130	1	24	0	0	3	331	4	169	1	17	**64**	**100**
Monaragala	0	333	0	36	0	4	0	0	0	79	0	189	0	82	0	41	0	0	0	212	0	112	0	22	**60**	**65**
Ratnapura	143	3630	5	117	0	39	0	10	10	33	49	1086	0	47	0	36	0	4	9	420	5	163	3	172	**48**	**100**
Kegalle	103	2348	0	39	1	19	0	2	0	28	15	292	1	59	2	97	0	0	7	474	2	56	4	61	**69**	**100**
Kalmune	92	1032	5	109	0	2	0	1	0	64	0	34	0	3	0	4	0	0	7	254	0	27	0	0	**62**	**100**
SRILANKA	**4809**	**85083**	**54**	**2050**	**3**	**220**	**9**	**247**	**15**	**893**	**21**	**5110**	**30**	**1367**	**4**	**421**	**0**	**28**	**129**	**7508**	**25**	**1346**	**77**	**3763**	**55**	**98**

Source: Weekly Returns of Communicable Diseases (WRCD).

*T=Timeliness refers to returns received on or before 29 th November , 2019 Total number of reporting units 353 Number of reporting units data provided for the current week: 330 C**-Completeness

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

Table 2: Vaccine-Preventable Diseases & AFP

23rd – 29th Nov 2019 (48th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2019	Number of cases during same week in 2018	Total number of cases to date in 2019	Total number of cases to date in 2018	Difference between the number of cases to date in 2019 & 2018
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	00	01	00	00	00	00	00	00	00	01	00	78	60	30.0 %
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Mumps	01	01	04	00	01	01	00	01	01	10	07	305	338	- 9.7 %
Measles	01	00	00	00	00	01	00	00	00	02	02	278	114	143.8 %
Rubella	00	00	00	00	00	00	00	00	00	00	00	00	08	0 %
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	19	19	0 %
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Japanese Encephalitis	01	00	00	00	00	00	00	00	00	01	00	16	25	- 36 %
Whooping Cough	00	00	00	00	00	00	00	00	00	00	00	38	47	- 19.1 %
Tuberculosis	91	07	15	01	06	14	15	11	00	160	117	7769	8113	- 4.2 %

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

NA = Not Available

Dengue Prevention and Control Health Messages

Look for plants such as bamboo, bohemia, rampe and banana in your surroundings and maintain them free of water collection.

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

ON STATE SERVICE

Dr. SUDATH SAMARAWEERA
CHIEF EPIDEMIOLOGIST
EPIDEMIOLOGY UNIT
231, DE SARAM PLACE
COLOMBO 10