WEEKLY EPIDEMIOLOGICAL REPORT

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

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WEEKLY EPIDEMIOLOGICAL REPORT SRI LANKA 2023

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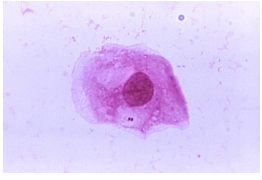
Meningococcal meningitis

Meningococcal meningitis is potentially a fatal disease. Meningococcal disease can progress rapidly to a serious state in a matter of hours, hence should always be viewed as a medical emergency. Early diagnosis and treatment are very important. Yet it is potentially preventable by vaccination and chemoprophylaxis under specific circumstances. It is important that proper treatment start as soon as possible. If a doctor suspects meningococcal disease, the antibiotics will be initiated immediately which will help to reduce the severity of the disease.

A bacteria called *Neisseria meningitides* is the most important causative organism. The bacteria are in the back of the nose and throat in about 10% of the population without symptoms which is considered a 'carrier' state. However, in some individuals, the bacteria invade the mucosa and enters the circulatory system causing systemic disease. On average the disease develops within four days of first exposure (incubation period) and can range from 2-10 days. The bacteria infect the membrane that surrounds the brain and the spinal cord (meninges). Out of the two types of the clinical disease "meningococcal meningitis" if adequately treated has a good prognosis compared to "Meningococcal septicemia" which is uncommon but highly lethal. Hence considered a medical emergency



Neisseria meningitides: Source PHIL Photo ID# 2678

The most common symptoms include fever, headache and neck stiffness. Often there are associated additional symptoms, such as nausea, vomiting, skin rash, photophobia /light sensitivity and confusion or altered mental state.

Spread to others

People spread meningococcal bacteria via respiratory and throat secretions (saliva or spit) mostly while sneezing or coughing. But the bacteria cannot survive in the environment or in other animals. Further, it is not as contagious as germs that cause the common cold or the flu. The bacteria spread to people who have had close or lengthy contact with a patient with meningococcal disease especially in enclosed spaces compared to open environments.

The role of health officials when a person presents with Meningococcal meningitis

In Sri Lanka, the cases are reported less frequently. Once reported prompt actions are being taken to prevent outbreaks by the health officials.

Regional Epidemiologists (RE)/Consultant Community physicians (CCP) are the supervising officials responsible at the district level. Responsibility for contact tracing and organizing the administration of chemoprophylaxis all lies with the district health teams which are guided and supervised by RE/CCP. The decision to initiate

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contact tracing would be taken in conjunction with relevant clinicians and after getting the expert opinion from the Epidemiology Unit. It is assured that all the contacts are identified and initiate prophylactic treatments. Further, the notification and the necessary documentation need to be conducted. The special surveillance form has to be filled and returned to the Epidemiology unit with a copy to RE. The RE should assure, the forms are sent on time.

Infection Control Nursing Officers / Hospital authorities are responsible for patient care and informing the preventive sector health officials. All confirmed or compatible cases should be reported immediately over the phone to the relevant Medical Officer of Health (MOH) or the Epidemiology Unit by the treating clinician. The notification form should be sent as soon as possible with the correct information related to the patient and with correct contact details to be traced by the field officers. The ICNO should enter the patient information into the hospital infectious disease register and update documents. She will conduct health education and identify contacts among healthcare workers and guide them for prophylaxis.

Medical Officer of Health (MOH) – As soon as the information is received, the MOH shall immediately visit the field and identify the location of the index case and initiate tracing all the possible contacts. The prophylaxis treatments are issued as soon as possible. Preferably within the first 24hrs of exposure to the index case to assure the higher effect of prophylactic treatments for preventing the disease among contacts. MOH will advise the contacts to admit to a hospital immediately if they develop a fever of acute onset with one or more of any suspicious symptoms/signs of meningeal irritation / inflammation (Irritability, Seizures, Poor sucking in infants, bulging fontanels in infants, Altered consciousness, and Neck stiffness). Upon the arrival of the notification form from a treatment facility, a Special investigation should be carried out in the field by MOH or by Additional MOH. Following the investigation in the field, the meningitis cases will be classified into Suspected, Probable bacterial meningitis, Probable viral meningitis, or Confirmed case groups. The relevant data is entered into weekly epidemiological returns and update registers. The special investigation form is sent to the Epidemiology Unit with a copy to RE.

Public Health Inspector (PHI) – PHI should accompany the MOH to carry out all the field activities. He should immediately visit the field & identify all the contacts of the patient and distribute prophylactic treatment with the supervision of MOH. And also should carry out the special investigation with MOH in the field and update registers and reports.

Chemoprophylaxis for Meningococcal meningitis contacts

Drug	Age group	Dose
Ciprofloxacin	Adults and children aged above 12 years	500mg orally as a single dose
Ciprofloxacin	Children aged 5-12 years	250mg orally as a single dose
Ciprofloxacin	Full-term neonates to 4 years of age children	30mg/kg orally as a single dose up to a maximum of 125mg

Chemoprophylaxis is given to prevent the occurrence of secondary cases by eliminating carriers with Neisseria meningitides. Even though it is an important control measure, massive chemoprophylaxis is not recommended. Treatments should be started as early as possible (should be taken ideally within 24hrs after diagnosis of the index case) for better outcomes. Yet secondary cases may occur within 10 days of exposure. Therefore, close observation of contacts is a must to ensure the administration of timely treatments.

Vaccination

The recommended vaccines are the best protection against meningococcal disease. Vaccines are used to prevent the disease among those who are at risk of infection, especially travelers, military, pilgrims and individuals with immune dysfunction. Certain countries advise travelers to get vaccinated at least ten days before they arrived in the country (Saudi Arabia). There is still a chance someone can develop meningococcal disease even after vaccination because, like with any vaccine, meningococcal vaccines are not 100% effective. Therefore people should be aware of the symptoms of meningococcal disease as early recognition and quick medical attention are extremely important to reduce the severe disease.

References

https://apps.who.int/iris/rest/bitstreams/959020/retrieve
https://www.epid.gov.lk/storage/post/pdfs/Fact%20sheet%20WH%20-%20Meningococcal%20meningitis%20-%20UPDATED_05122011%20-.pdf
https://www.cdc.gov/meningococcal/index.html

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Table 1: Selected notifiable diseases reported by Medical Officers of Health 03rd– 09th June 2023 (23rd Week)

RDHS	Dengue Fever		Dysentery		Encephaliti		Enteric Fever		Food Poi-		Leptospirosis		Typhus		Viral Hep-		Human		Chickenpox		Meningitis		Leishmania-		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	412	7733	0	5	0	9	0	1	0	6	7	156	0	0	0	3	0	0	3	151	3	22	0	5	**23**	**100**
Gampaha	351	7564	0	7	0	11	0	1	0	2	5	289	0	6	0	9	0	0	3	138	1	36	1	25	**1**	**96**
Kalutara	192	2605	0	14	0	1	0	0	0	5	28	412	0	1	0	2	0	1	6	233	0	40	0	1	**8**	**100**
Kandy	263	2594	0	18	0	0	0	4	0	12	8	132	2	36	0	2	0	1	2	137	0	11	1	15	**83**	**100**
Matale	43	723	0	2	0	0	0	1	0	5	4	86	0	9	0	3	0	0	3	30	0	3	5	159	**19**	**100**
NuwaraEliya	7	111	4	72	0	1	1	2	0	38	3	53	7	35	1	4	0	0	2	59	0	8	0	0	**56**	**100**
Galle	69	1161	3	25	0	11	0	5	0	18	14	492	0	26	0	1	0	1	7	180	0	11	0	1	**32**	**100**
Hambantota	82	813	0	4	2	3	0	1	0	8	14	174	2	46	0	7	0	0	1	85	0	14	22	308	**22**	**100**
Matara	48	876	2	19	1	6	0	0	2	9	20	317	0	18	0	2	0	1	5	141	1	10	7	87	**49**	**100**
Jaffna	51	1527	1	44	0	1	0	8	0	16	0	8	6	463	0	1	0	1	1	110	0	5	0	2	**61**	**93**
Kilinochchi	2	64	0	4	0	0	0	0	0	16	0	7	1	6	0	0	0	0	0	8	0	0	0	0	**17**	**98**
Mannar	4	66	0	6	0	0	0	1	0	0	3	27	0	5	0	0	0	0	0	1	1	4	0	0	**26**	**100**
Vavuniya	5	107	0	5	0	1	0	0	0	0	0	25	1	7	0	1	0	0	2	13	0	3	1	6	**3**	**100**
Mullaitivu	4	70	0	8	0	0	0	3	0	11	0	26	0	4	0	0	0	0	0	10	0	0	2	5	**19**	**99**
Batticaloa	74	1648	3	127	0	6	0	3	4	16	2	58	0	1	0	3	0	1	2	38	1	23	0	1	**53**	**100**
Ampara	0	43	0	1	0	1	0	0	0	0	0	12	0	0	0	1	0	0	0	17	0	7	0	2	**15**	**44**
Trincomalee	77	1704	0	5	0	1	0	0	0	4	2	54	0	13	0	0	0	0	2	30	0	17	0	1	**20**	**100**
Kurunegala	123	1673	1	20	0	7	0	0	0	2	19	203	0	9	0	8	0	2	2	255	1	76	8	231	**19**	**100**
Puttalam	53	2482	0	7	0	1	0	1	0	0	4	28	0	7	0	1	0	0	1	68	4	32	0	14	**15**	**100**
Anuradhapur	48	412	0	3	0	0	0	1	0	2	10	193	1	24	0	2	0	0	5	134	2	25	7	270	**20**	**99**
Polonnaruwa	13	378	0	10	0	5	0	0	0	6	5	115	0	5	0	10	0	0	3	44	0	13	8	227	**33**	**99**
Badulla	17	586	2	17	0	3	0	0	0	26	13	162	0	26	1	58	0	0	9	93	1	21	1	14	**64**	**100**
Monaragala	24	320	0	14	1	4	0	0	0	0	21	373	1	28	1	16	0	0	1	40	0	39	5	92	**23**	**100**
Ratnapura	82	1127	3	23	0	10	1	2	3	12	39	606	0	16	0	12	0	1	8	101	3	97	5	98	**33**	**100**
Kegalle	91	1557	1	12	0	1	0	2	0	8	22	352	1	19	0	3	0	0	5	219	1	33	1	18	**28**	**100**
Kalmune	29	1448	3	34	0	7	0	0	0	0	2	30	0	0	0	0	0	0	4	35	1	16	0	0	**41**	**100**
SRILANKA	**216**	**39392**	**23**	**506**	**4**	**90**	**2**	**36**	**9**	**222**	**24**	**4390**	**22**	**810**	**3**	**149**	**0**	**9**	**77**	**2370**	**20**	**566**	**74**	**1582**	**33**	**98**

Source: Weekly Returns of Communicable Diseases (esurvillance.epid.gov.lk). **T=**Timeliness refers to returns received on or before 09th June, 2023 Total number of reporting units 358 Number of reporting units data provided for the current week: 340 **C****-Completeness

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

Table 2: Vaccine-Preventable Diseases & AFP

03rd– 09th June 2023(23rd Week)

Disease	No. of Cases by Province									Number of cases during current week in 2023	Number of cases during same week in 2022	Total number of cases to date in 2023	Total number of cases to date in 2022	Difference between the number of cases to date in 2023 & 2022
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	01	01	00	00	00	00	00	00	00	02	02	43	38	13.1 %
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Mumps	00	01	00	00	01	00	00	00	00	02	01	95	28	239.2 %
Measles	00	01	00	00	00	00	00	00	00	01	00	22	12	83.3 %
Rubella	00	00	00	00	00	00	00	00	00	00	00	01	00	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	05	05	0 %
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	02	07	- 71.4 %
Whooping Cough	00	00	00	00	00	00	00	00	00	00	00	04	01	300 %
Tuberculosis	106	38	20	20	04	04	10	12	15	229	68	3997	2875	39.0 %

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

Take prophylaxis medications for leptospirosis during the paddy cultivation and harvesting seasons.

It is provided free by the MOH office / Public Health Inspectors.

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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