WEEKLY EPIDEMIOLOGICAL REPORT

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Neglected Tropical Diseases - Buruli Ulcer

Buruli Ulcer is a chronic debilitating disease caused by an environmental mycobacterium known as *Mycobacterium ulcerans.* which produces a toxin known as mycolactone. It is a disease affecting the skin, but infection can spread to bones as well, causing permanent disfigurement and disability. The mode of infection in humans is at present unknown. Buruli ulcer has been reported in 33 countries in Africa, the Americas, Asia and the Western Pacific. As there is yet no standard mode of prevention of the disease, early diagnosis and treatment with antibiotics are vital to minimizing disease morbidity.

Buruli Ulcers occur in the limbs 90% of the time and may present in one of the following forms early-on in the disease:

- a painless swelling/nodule
- a large painless area of induration
- diffuse oedema of the limbs and/or face.

Without appropriate care and management, these lesions can ulcerate within 4 weeks. Nodules are often misdiagnosed as boils, lipomas, ganglions etc; indurations as insect bites and oedema as cellulitis. Therefore, careful examination and differentiation of these lesions is of importance for early detection.

Medical treatment of Buruli Ulcer consists of a combination of rifampicin and clarithromycin. Surgical care includes proper wound care, management of lymphoedema and surgery (debridement and skin grafting) where necessary.

Source: *Wikipedia*

Chagas Disease/ American trypanosomiasis

Chagas Disease, which more commonly seen in the Latin Americas is a potentially life-threatening illness that has affected 6-7 million world over. It is caused by a protozoan known as *Trypanosoma cruzi* which is transmitted to humans through contact with faeces and/or urine of infected triatomine bugs. These nocturnal bugs dwell in cracks of poorly constructed buildings and are active during the night. These bugs suck on human blood and defaecate on human skin. The protozoan is transmitted to humans when the bugs' faeces comes in contact with a break in skin, or by consumption of food that has been contaminated with the bugs' waste, which can even result in outbreaks. Other methods of blood -borne transmission such as mother-to-child transmission, organ transplantation and blood or blood product transfusion have also been seen

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The disease can be described in two phases

Initial Acute Phase	Chronic Phase
lasts for about 2 months after infection A high number of parasites circulate in the blood symptoms are absent or mild and unspecific in majority of patients In less than 50%, characteristic first visible signs can be a skin lesion or a purplish swelling of the lids of one eye. Additionally, fever, headache, enlarged lymph glands, pallor, muscle pain, difficulty in breathing, swelling, and abdominal or chest pain may be seen.	the parasites are hidden mainly in the muscles of the heart and digestive system. up to 30% of patients suffer from cardiac disorders up to 10% suffer from digestive (typically enlargement of the oesophagus or colon), neurological or mixed alterations. In later years the infection can lead to sudden death due to cardiac arrhythmias or progressive heart failure caused by the destruction of the heart muscle and its nervous system.

Treatment with benznidazole or nifurtimox is 100% effective at curing the disease if given in the acute stage of infection. Vector control, by way of insectides has been the most effective method of prevention and control while screening of blood products is also a vital component of disease prevention.

Dengue

Dengue is a mosquito-borne viral disease transmitted to humans by the female Aedes mosquito when it sucks on human blood. These mosquitoes which are daytime biters, are also vectors of chikungunya, yellow fever and Zika viruses. Dengue infection has spread rapidly within the tropics as a result of climate change and unplanned urbanization, with outbreaks coinciding with rainfall, warmer seasons and relative humidity. In fact, some countries, including Sri Lanka are hyperendemic to the disease. The Dengue virus is a flavivirus which has 4 serotypes (DENV-1, DENV-2, DENV-3 and DENV-4) and infection with one serotype is believed to produce lifelong immunity towards that particular serotype.

Dengue can result in a range of disease, ranging from subclinical infection to severe disease, with deleterious outcomes. The commonest symptom of presentation is an acute fever, which when accompanied with any 2 of severe headache, arthralgia, myalgia, retro-orbital pain, nausea, vomiting or rash, should alert a clinician. Patients can progress from mild disease and enter the critical phase, when they will have to be carefully managed to prevent complications.

Environmental sanitation and vector control form the mainstay modes of prevention and control of Dengue

Chikungunya

Chikungunya is a disease characterized by acute fever and severe arthralgia which may often be confused with dengue. It is caused by a RNA virus, and similar to dengue, is transmitted to humans by the female Aedes mosquito. Chikungunya has resulted in severe outbreaks in the American, African and Asian subcontinents. Most patients make a full recovery, but arthralgia may persist in some patients for several months. Serious complications are not frequently observed. However, the disease may contribute to death in the elderly.

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References:

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Table 1: Selected notifiable diseases reported by Medical Officers of Health 25th– 31st July 2020 (31st 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	72	3532	2	22	1	9	1	5	0	14	10	223	1	2	0	3	0	0	1	184	2	33	0	2	**56**	**100**
Gampaha	23	2106	0	8	0	4	1	6	0	19	3	166	0	1	0	5	0	0	0	227	1	20	0	40	**42**	**98**
Kalutara	28	1505	1	10	0	5	0	4	0	4	4	475	0	13	0	5	0	0	4	251	0	33	0	0	**99**	**99**
Kandy	97	2389	3	21	0	1	0	8	0	11	10	159	3	82	0	4	0	0	1	141	2	21	0	53	**63**	**100**
Matale	5	523	0	6	0	3	0	5	0	6	0	85	1	6	1	7	0	1	1	47	0	2	2	214	**63**	**100**
NuwaraEliya	4	149	1	23	0	1	0	1	0	9	7	85	1	67	0	3	0	0	0	69	0	10	0	0	**23**	**100**
Galle	19	1367	0	24	1	17	1	3	1	14	17	479	1	42	0	3	0	0	1	272	1	35	0	4	**31**	**99**
Hambantota	2	314	0	7	0	4	0	2	5	43	7	168	6	43	0	2	0	1	0	155	2	37	29	477	**68**	**100**
Matara	6	461	2	21	0	14	0	1	0	3	4	378	0	8	0	7	0	0	2	113	1	16	13	277	**16**	**100**
Jaffna	4	1964	3	70	0	0	0	20	2	22	0	20	0	492	0	0	0	1	3	93	0	9	0	0	**32**	**93**
Kilinochchi	2	122	1	37	0	2	0	10	0	13	0	18	0	27	0	1	0	0	0	12	0	10	0	13	**6**	**100**
Mannar	2	130	0	0	0	0	0	1	0	2	0	6	1	2	0	0	0	0	0	2	0	6	0	0	**39**	**100**
Vavuniya	0	246	0	10	0	0	0	5	0	2	0	40	0	1	0	0	0	0	0	29	0	4	0	1	**65**	**100**
Mullaitivu	0	79	0	8	0	0	0	6	0	2	0	20	0	9	0	3	0	2	0	9	0	4	0	6	**42**	**94**
Batticaloa	16	2277	4	64	0	4	0	1	0	45	1	26	0	0	0	5	0	1	0	78	0	18	0	1	**52**	**100**
Ampara	0	303	0	14	0	3	0	0	0	0	0	79	0	0	0	2	0	0	0	99	0	15	0	4	**67**	**100**
Trincomalee	3	2266	0	12	0	0	0	0	0	2	0	28	0	6	0	0	0	0	0	81	0	8	0	0	**46**	**92**
Kurunegala	12	793	0	19	1	8	0	3	0	36	2	155	0	24	0	5	0	3	0	282	3	25	11	303	**46**	**99**
Puttalam	5	417	0	8	0	4	0	3	0	1	2	50	0	14	0	0	0	1	0	70	1	40	1	6	**57**	**100**
Anuradhapur	6	382	0	16	0	1	0	4	0	26	3	205	0	20	0	12	0	1	0	163	2	41	10	158	**41**	**96**
Polonnaruwa	0	220	0	5	0	0	0	0	0	5	0	115	0	1	0	17	0	1	2	117	0	13	13	178	**61**	**90**
Badulla	5	425	0	15	0	5	0	3	1	4	8	246	1	65	0	13	0	0	1	126	1	30	0	17	**59**	**96**
Monaragala	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Ratnapura	75	1620	5	67	0	23	0	5	2	29	42	1109	4	35	0	13	0	0	2	154	2	84	8	91	**50**	**100**
Kegalle	26	647	0	16	0	7	0	3	0	17	9	322	1	37	0	9	0	0	0	140	1	41	1	22	**55**	**99**
Kalmune	7	868	0	45	0	3	0	0	3	6	1	16	0	2	0	3	0	0	1	267	1	34	0	0	**71**	**100**
SRILANKA	**419**	**25105**	**22**	**548**	**3**	**11**	**3**	**99**	**14**	**335**	**13**	**4673**	**20**	**1000**	**1**	**122**	**0**	**12**	**19**	**3181**	**20**	**589**	**88**	**1867**	**49**	**95**

Source: Weekly Returns of Communicable Diseases (WRCD).

*T=Timeliness refers to returns received on or before 31st July , 2020 Total number of reporting units 356 Number of reporting units data provided for the current week: 323 C**-Completeness

Table 2: Vaccine-Preventable Diseases & AFP

25th– 31st July 2020 (31st Week)

Disease	No. of Cases by Province									Number of cases during current week in 2020	Number of cases during same week in 2019	Total number of cases to date in 2020	Total number of cases to date in 2019	Difference between the number of cases to date in 2020 & 2019
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	00	00	00	00	00	00	00	00	00	00	00	25	47	- 46.8 %
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Mumps	00	00	00	00	00	00	00	00	03	03	12	116	218	- 46.7 %
Measles	00	00	00	00	00	00	00	00	00	00	05	35	215	- 83.7 %
Rubella	00	00	00	00	00	00	00	00	00	00	00	00	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	01	03	13	- 76.9 %
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Japanese Encephalitis	00	00	00	00	02	00	00	00	00	00	00	31	10	210 %
Whooping Cough	00	00	00	00	00	00	00	00	00	00	00	05	36	- 86.1 %
Tuberculosis	32	09	30	05	06	20	00	01	05	108	243	3610	5117	- 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

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.

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**

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