



# WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit  
Ministry of Health

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Vol. 41 No. 43

18<sup>th</sup> – 24<sup>th</sup> October 2014

## Lymphatic filariasis (Part-II)

This is the second in a series of two articles on Lymphatic filariasis

### Management

The medical management of a filarial infection should be specific and based on the microfilariae isolated or antigenaemia detected.

Mass drug administration reduces the transmission of filarial infection and disease morbidity by decreasing the burden of microfilaraemia, resulting in suboptimal levels for transmission by disease vectors.

For example, annual mass treatment with albendazole and ivermectin is employed to interrupt the transmission of *W bancrofti*. Since this species has no alternative hosts, this approach could theoretically result in eventual eradication of bancroftian filariasis.

One study evaluated the effect of higher dose and increased frequency (twice yearly) of albendazole-ivermectin therapy for *W bancrofti* and found that it resulted in complete microfilarial clearance, as well as a more sustained clearance than that resulting from standard-dose albendazole-ivermectin treatment.

The effects of mass treatment on filariasis have reportedly been sustained for up to 6 years. No filariasis vaccine is currently available, but efforts to develop an effective one are underway.

### Surgery

Large hydroceles and scrotal elephantiasis can be managed with surgical excision. Correcting gross limb elephantiasis with surgery is less successful and may necessitate multiple procedures and skin grafting.

### Diet and Activity

Fatty foods are restricted in individuals with proven chyluria that is associated with lymphatic filariasis.

Individuals with chronic lymphatic filariasis are encouraged to mobilize (with compression bandage support) the affected limb.

### WHO's response

World Health Assembly Resolution 50.29 encourages Member States to eliminate lymphatic filariasis as a public health problem. In response, WHO launched its Global Programme to Eliminate Lymphatic Filariasis (GPELF) in 2000 with the aim of eliminating the disease as a public-health problem. In 2012, the WHO NTD Roadmap reconfirmed the target date for achieving elimination by 2020.

WHO's strategy is based on 2 key components:

- Stopping transmission through large-scale annual treatment of all eligible people in an area or region where infection is present;
- Alleviating the suffering caused by lymphatic filariasis through increased morbidity management and disability prevention activities

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**Large-scale treatment (mass drug administration)**

Prevention of lymphatic filariasis is possible by stopping the spread of the infection. Large-scale treatment involves a single dose of 2 medicines given annually to an entire at-risk population in the following way: albendazole (400 mg) together with ivermectin (150-200 mcg/kg) or with diethylcarbamazine citrate (DEC) (6 mg/kg).

These preventive chemotherapy medicines have a limited effect on adult parasites but effectively clear microfilariae from the bloodstream and prevent the spread of parasites to mosquitoes. Large-scale treatment conducted annually for 4-6 years, treating all persons living in areas where the infection is present can interrupt the transmission cycle.

By 2012, 56 countries had started implementing large-scale treatment through mass drug administration (MDA). Of the 56 countries that had implemented MDA, 13 countries have moved to the post-MDA surveillance phase.

From 2000 to 2012, more than 4.4 billion treatments were delivered to a targeted population of about 984 million individuals in 56 countries, considerably reducing transmission in many places.

Recent research data show that the transmission of lymphatic filariasis in at-risk populations has dropped by 43% since the beginning of the GPELF. The overall economic benefit of the programme during 2000-2007 is conservatively estimated at US\$ 24 billion.

**Morbidity management**

Morbidity management and disability prevention are vital for improving public health and should be fully integrated into the health system. Surgery can alleviate most cases of hydrocele. Clinical severity of lymphoedema and acute inflammatory episodes can be improved using simple measures of hygiene, skin care, exercise, and elevation of affected limbs.

The GPELF aims to provide access to a minimum package of care for every person with associated chronic manifestations of lymphatic filariasis in all areas where the disease is present, thus alleviating suffering and promoting improvement in their quality of life.

**Vector control**

Mosquito control is another supplemental strategy supported by WHO. It is used to reduce transmission of lymphatic filariasis and other mosquito-borne infections. Measures such

as insecticide-treated nets or indoor residual spraying may help protect people from infection.

**Sources**

Lymphatic filariasis- available at <http://www.who.int/mediacentre/factsheets/fs102/en/>

Filariasis- available at <http://emedicine.medscape.com/article/217776-overview#a0101>

**Compiled by Dr. C U D Gunasekara of the Epidemiology Unit.**

**Table 1 : Water Quality Surveillance  
Number of microbiological water samples - September/2014**

District	MOH areas	No: Expected *	No: Received
Colombo	12	72	51
Gampaha	15	90	92
Kalutara	12	72	NR
Kalutara NIHS	2	12	13
Kandy	23	138	0
Matale	12	72	52
Nuwara Eliya	13	78	27
Galle	19	114	76
Matara	17	102	13
Hambantota	12	72	49
Jaffna	11	66	15
Kilinochchi	4	24	0
Manner	5	30	0
Vavuniya	4	24	7
Mullatvu	4	24	5
Batticaloa	14	84	0
Ampara	7	42	0
Trincomalee	11	66	NR
Kurunegala	23	138	39
Puttalam	9	54	55
Anuradhapura	19	114	6
Polonnaruwa	7	42	0
Badulla	15	90	48
Moneragala	11	66	42
Rathnapura	18	108	84
Kegalle	11	66	11
Kalmunai	13	78	0

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

Table 1: Selected notifiable diseases reported by Medical Officers of Health 11th - 17th Oct 2014 (42nd 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	176	119	1	120	0	11	8	96	0	211	9	138	0	3	2	44	0	0	0	3	352	1	51	0	3	69	31
Gampaha	119	6036	6	126	0	11	0	32	0	24	24	289	1	20	10	224	0	5	6	249	2	59	0	2	60	40	
Kalutara	36	2179	3	142	1	11	0	46	0	59	8	258	1	3	0	19	0	1	3	213	0	64	0	0	69	31	
Kandy	60	1405	1	80	0	6	1	21	1	18	2	42	1	74	14	166	0	1	3	165	1	26	0	5	96	4	
Matale	11	393	1	58	0	2	0	18	0	17	0	33	0	2	6	129	0	1	0	48	0	45	0	27	69	31	
NuwaraEliya	6	246	7	226	0	3	1	18	0	69	0	23	0	55	1	31	0	0	0	110	2	31	0	0	92	8	
Galle	5	887	2	105	0	6	0	8	0	33	9	157	1	85	2	8	0	0	2	365	0	47	0	3	70	30	
Hambantota	5	535	2	44	0	4	1	11	0	16	0	77	1	65	0	16	0	0	0	128	0	40	6	306	83	17	
Matara	32	557	4	88	0	4	0	23	1	19	7	81	3	53	2	36	0	0	9	160	1	30	1	75	100	0	
Jaffna	50	999	48	525	0	7	12	201	1	60	0	8	2	274	1	9	0	0	1	121	2	52	0	1	100	0	
Kilinochchi	1	47	2	86	0	3	0	23	0	0	0	1	0	20	0	0	0	0	0	15	0	6	0	11	50	50	
Mannar	15	128	0	36	0	10	0	34	0	9	0	4	0	24	0	1	0	0	0	10	0	7	0	4	60	40	
Vavuniya	0	108	0	49	0	1	0	36	0	22	0	9	0	6	0	5	0	0	1	12	0	14	0	5	50	50	
Mullaitivu	0	87	0	53	0	0	1	12	0	20	0	8	0	11	0	0	0	2	0	5	0	5	0	7	80	20	
Batticaloa	7	680	11	269	0	3	0	34	0	30	0	16	0	2	0	7	0	1	2	54	0	6	0	0	79	21	
Ampara	1	129	3	64	0	1	0	3	0	10	0	15	0	12	0	5	0	1	1	89	0	9	0	10	57	43	
Trincomalee	3	508	0	43	0	1	0	4	1	10	0	16	1	21	0	2	0	0	0	94	0	14	0	7	58	42	
Kurunegala	32	1741	1	116	0	26	1	18	1	27	5	89	0	43	1	53	0	1	5	354	0	64	1	120	78	22	
Puttalam	11	559	1	62	0	2	1	13	0	11	0	58	1	22	0	4	0	3	1	75	2	25	0	6	62	38	
Anuradhapura	9	442	6	149	0	5	0	3	0	45	0	81	0	27	1	11	0	0	4	200	0	44	8	360	79	21	
Polonnaruwa	10	445	0	40	0	4	0	6	0	1	0	58	0	8	0	8	0	0	1	138	0	25	0	112	71	29	
Badulla	21	590	1	149	0	9	1	12	0	11	1	48	1	96	2	125	0	0	0	69	1	113	0	0	59	41	
Monaragala	3	240	3	59	0	4	0	8	0	33	2	67	0	145	3	110	0	2	3	77	0	21	0	27	91	9	
Ratnapura	45	2532	1	195	0	23	1	26	0	26	13	335	1	96	13	389	0	1	1	171	1	40	0	28	78	22	
Kegalle	12	1362	0	96	1	10	7	45	0	34	4	162	1	53	1	220	0	0	2	224	0	68	0	2	73	27	
Kalmune	5	146	1	108	0	1	0	6	0	74	0	2	0	0	0	0	0	0	1	89	0	8	0	0	62	38	
<b>SRILANKA</b>	<b>675</b>	<b>34043</b>	<b>105</b>	<b>3088</b>	<b>2</b>	<b>168</b>	<b>35</b>	<b>757</b>	<b>5</b>	<b>889</b>	<b>84</b>	<b>2075</b>	<b>15</b>	<b>1220</b>	<b>59</b>	<b>1622</b>	<b>0</b>	<b>19</b>	<b>49</b>	<b>3587</b>	<b>13</b>	<b>914</b>	<b>16</b>	<b>1121</b>	<b>75</b>	<b>25</b>	

Source: Weekly Returns of Communicable Diseases (WRCD).

\*T-Timeliness refers to returns received on or before 17th October, 2014. Total number of reporting units 337. Number of reporting units data provided for the current week: 257. C\*\*-Completeness

Table 2: Vaccine-Preventable Diseases & AFP

11<sup>th</sup> - 17<sup>th</sup> Oct 2014 (42<sup>nd</sup> Week)

Disease	No. of Cases by Province									Number of cases during current week in 2014	Number of cases during same week in 2013	Total number of cases to date in 2014	Total number of cases to date in 2013	Difference between the number of cases to date in 2013 & 2014
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	00	00	00	00	01	00	01	00	00	02	01	67	76	-11.9%
Diphtheria	00	00	00	00	00	00	00	00	00	00	-	00	-	%
Mumps	01	00	02	02	02	01	00	01	00	09	12	567	1274	-55.5%
Measles	11	02	04	00	01	03	00	01	02	24	30	2826	3215	-12.1%
Rubella	00	00	00	00	00	00	00	00	00	00	01	17	26	-34.6%
CRS**	00	00	00	00	00	00	00	00	00	00	00	04	06	-33%
Tetanus	00	00	00	00	00	00	00	00	00	00	00	12	19	-36.9%
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	00	%
Japanese Encephalitis	00	00	00	00	00	00	00	00	00	00	00	22	68	-67.6%
Whooping Cough	00	00	00	01	00	00	01	01	01	04	01	61	70	-12.9%
Tuberculosis	89	41	15	12	03	06	08	08	31	213	20	7962	6617	+20.3%

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

Influenza Surveillance in Sentinel Hospitals - ILI & SARI								
Month	Human					Animal		
	No Received	ILI	SARI	Infl A	Infl B	Pooled samples	Serum Samples	Positives
September	2249	100	19	4	1	600	666	0

Source: Medical Research Institute & Veterinary Research Institute

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](mailto: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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