WEEKLY EPIDEMIOLOGICAL REPORT

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Onchocerciasis Part II

This is the last of a series of 2 articles.

Ivermectin

The outstanding problem in onchocerciasis remains the treatment of patients, particularly those whose eyes are at risk. We are still dependent on two drugs, DEC-C and suramin, whose actions were discovered more than 30 years ago and which are far from satisfactory in use. That new drugs for onchocerciasis have not appeared in recent years is in part an expression of the generally declining interest shown by the pharmaceutical industry for research into new drugs for use against tropical parasitic diseases-an area where the market is unlikely to be profitable. What is now needed above all is a non-toxic drug, which has a convenient dosage schedule and which can kill or permanently sterilise the adult worms of 0 volvulus without producing a microfilaricidal reaction (4).

In 1989, onchocerciasis had been eliminated as a public health problem throughout Burkina Faso by insecticidal treatment of vector breeding sites, but epidemiological surveys along the Comoé River in 2010/11 revealed a recrudescence of infection rates. Modern onchocerciasis control is based upon mass drug administration using ivermectin, and hence biannual distribution of ivermectin was instigated to bring the recrudescence under control. However, it was by no means certain that this was an appropriate strategy because the area was already under mass drug administration with ivermectin since 2004 to eliminate lymphatic filariasis. *Onchocerca volvulus* adult females with reduced susceptibility to ivermectin have been reported from Ghana, and if the Burkinabe recrudescence was the result of reduced susceptibility, ivermectin might fail to solve the problem (5,6).

Treatment adherence was influenced by participation in selecting drug distributers, measuring height for dose determination, perceived risk of getting onchocerciasis, living near running water and perceived needs of support for intake of ivermectin. To improve intake of the drug and its adherence, the community should be empowered to make decisions, and counselling family members and sensitizing those living far from river sides is commendable. Health information about onchocerciasis should be strengthening to increase risk perception (7).

Challenges

Data published by the World Health Organization (WHO) show that, in 2020, countries endemic for onchocerciasis continued to make progress in interrupting transmission of the disease, despite disruptions caused by the COVID-19 pandemic. Many countries were able to implement large-scale treatment campaigns by observing robust COVID-19 risk mitigation measures (8).

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"Despite pandemic challenges health workers managed to deliver ivermectin[1] treatment to more than 112 million people" said Dr Daniel Argaw Dagne, Unit head, Prevention, Treatment and Care, WHO Department of Control of Neglected Tropical Diseases. "In current circumstances, this is a remarkable achievement."

As many as six countries[2] in Africa were unable to implement planned large-scale treatment programmes and this resulted in a 27% reduction in coverage as compared with 2019. In the pre-pandemic years, several countries completed post-treatment surveillance resulting in 1.8 million people no longer requiring treatment.

"Progress needs to be sustained and one of the priorities now is to determine areas that require continued treatment for local populations," said Dr Dieudonné Sankara, Team lead, Elimination and Eradication, WHO Department of Control of Neglected Tropical Diseases. "Experts are working to evaluate strategies that can be used to guide countries in deciding when to stop large-scale treatment programmes" (2).

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Table 1 : Water Quality Surveillance
Number of microbiological water samples June 2021

District	MOH areas	No: Expected *	No: Received
Colombo	15	90	NR
Gampaha	15	90	NR
Kalutara	12	72	NR
Kalutara NIHS	2	12	NR
Kandy	23	138	NR
Matale	13	78	NR
Nuwara Eliya	13	78	18
Galle	20	120	NR
Matara	17	102	NR
Hambantota	12	72	8
Jaffna	12	72	NR
Kilinochchi	4	24	NR
Manner	5	30	NR
Vavuniya	4	24	NR
Mullatvu	5	30	NR
Batticaloa	14	84	NR
Ampara	7	42	NR
Trincomalee	11	66	NR
Kurunegala	29	174	NR
Puttalam	13	78	NR
Anuradhapura	19	114	NR
Polonnaruwa	7	42	0
Badulla	16	96	NR
Moneragala	11	66	NR
Rathnapura	18	108	NR
Kegalle	11	66	0
Kalmunai	13	78	NR

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

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Table 1: Selected notifiable diseases reported by Medical Officers of Health 10th – 16th Jul 2021 (29th 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	216	2753	1	10	1	1	0	4	0	3	4	127	0	1	0	2	0	2	1	21	1	7	0	1	48	100
Gampaha	104	1397	0	1	0	1	0	1	0	0	5	150	1	4	0	4	0	3	0	18	1	9	0	12	47	75
Kalutara	42	740	0	11	0	2	0	1	0	0	10	359	0	3	0	1	0	1	3	63	1	14	0	0	24	100
Kandy	25	417	0	17	0	1	0	2	0	2	2	94	0	27	0	1	0	0	0	29	1	12	0	18	37	100
Matale	7	87	1	12	0	4	0	0	0	0	6	55	1	5	0	1	0	0	0	12	0	1	15	132	58	100
NuwaraEliya	1	33	0	11	0	2	0	2	0	0	0	39	0	34	1	3	0	0	1	23	0	7	0	1	54	100
Galle	10	218	2	5	0	1	0	5	0	5	15	466	0	22	0	2	0	0	6	40	1	22	0	1	28	100
Hambantota	8	227	0	8	0	2	0	2	0	4	7	179	3	50	0	7	0	0	0	38	1	25	3	271	41	100
Matara	34	339	0	3	0	1	0	1	0	0	4	177	0	13	0	2	0	0	0	46	2	8	4	189	74	100
Jaffna	0	116	1	34	0	3	0	13	0	27	0	15	3	430	0	0	0	3	0	25	0	3	0	2	42	88
Kilinochchi	1	23	2	21	0	0	0	1	0	10	1	49	1	65	0	0	0	0	0	10	0	0	0	1	21	100
Mannar	0	22	0	2	0	0	0	4	0	0	0	26	0	2	0	0	0	0	0	3	0	15	0	1	53	100
Vavuniya	2	35	0	2	0	1	0	1	0	0	0	22	0	2	0	1	0	0	0	6	0	1	0	1	41	100
Mullaitivu	0	5	0	3	0	0	0	0	0	0	0	26	1	8	0	0	0	0	0	9	0	6	0	0	42	100
Batticaloa	4	2980	0	22	0	3	0	2	0	15	0	38	0	0	0	1	0	0	0	11	1	21	0	0	25	100
Ampara	1	28	1	7	0	0	0	1	0	7	1	45	0	0	0	2	0	0	0	37	2	11	2	5	47	100
Trincomalee	0	119	0	0	0	0	0	0	0	2	0	4	0	0	0	2	0	0	0	16	0	2	0	0	60	100
Kurunegala	15	713	0	14	0	3	0	0	0	3	5	208	0	14	1	1	1	2	0	39	0	76	1	237	28	100
Puttalam	7	248	0	2	0	1	0	0	0	0	1	20	0	15	0	0	0	1	0	16	0	29	0	9	39	99
Anuradhapur	3	155	0	10	0	0	0	1	0	3	5	210	1	22	0	4	0	0	0	29	3	30	16	151	41	91
Polonnaruwa	3	52	0	3	0	0	0	3	0	2	2	99	0	3	0	2	0	0	1	23	0	1	0	268	27	100
Badulla	13	155	0	9	0	0	0	1	0	0	6	222	1	34	0	19	0	0	0	32	0	14	0	15	39	100
Monaragala	5	84	0	6	0	0	0	3	0	5	5	267	1	23	1	54	0	0	2	23	0	42	0	19	45	100
Ratnapura	12	349	0	24	0	6	0	0	0	4	14	553	0	17	1	7	0	1	0	40	3	57	5	68	50	95
Kegalle	18	305	0	4	0	9	0	0	0	2	11	203	2	10	0	1	0	0	0	74	2	24	0	11	36	100
Kalmune	0	265	0	11	0	2	0	1	0	1	0	16	0	1	0	2	0	2	0	14	0	7	0	2	42	100
SRILANKA	**531**	**1186**	**8**	**252**	**1**	**43**	**0**	**49**	**0**	**95**	**10**	**3669**	**15**	**805**	**4**	**11**	**1**	**15**	**14**	**697**	**19**	**444**	**46**	**1415**	**44**	**97**

Source: Weekly Returns of Communicable Diseases (esurvillance.epid.gov.lk). T=Timeliness refers to returns received on or before 16th July , 2021 Total number of reporting units 361 Number of reporting units data provided for the current week: 351 C**-Completeness

Table 2: Vaccine-Preventable Diseases & AFP

10th – 16th Jul 2021 (29th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2021	Number of cases during same week in 2020	Total number of cases to date in 2021	Total number of cases to date in 2020	Difference between the number of cases to date in 2021& 2020
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	00	00	00	00	00	00	00	00	00	00	02	28	24	16.6 %
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Mumps	00	01	00	00	00	00	00	00	00	01	03	50	106	- 52.8 %
Measles	00	00	00	00	00	00	00	00	00	00	02	09	34	- 73.5 %
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	00	02	03	-33.33%
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	28	-100%
Whooping Cough	00	00	00	00	00	00	00	00	00	00	00	00	05	-100%
Tuberculosis	00	21	40	14	05	12	00	13	18	123	210	3085	3356	- 8.07 %

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

Influenza Surveillance in Sentinel Hospitals - ILI & SARI

Month	Human				Animal		
	No Total	No Positive	Infl A	Infl B	Pooled samples	Serum Samples	Positives
July							

Source: Medical Research Institute & Veterinary Research Institute

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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