WEEKLY EPIDEMIOLOGICAL REPORT

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Implementation of prophylactic treatment for tuberculosis in Sri Lanka

This is the second article of two in a series on "Implementation of prophylactic treatment for tuberculosis in Sri Lanka."

The target population for Sri Lanka

For many years, Sri Lanka has been giving TPT to children under five years who are close contacts of bacteriologically confirmed PTB patients and PLHIV patients. With the expansion of the LTBI implementation, other high-risk groups recognized by WHO were also included in LTBI guidelines for Sri Lanka.

The implementation is carried out in a phased-out manner within the country according to feasibility. Initially, during 2022, all children up to 15 years and close contacts of TB patients above 50 years, were included for TPT and during 2023, this was further expanded to all close contacts among PTB patients. TPT for PLHIV continued, while certain high-risk groups such as organ transplant and dialysis categories were also addressed for TPT according to feasibility. Currently, the programme is in the process of strengthening the TPT implementation in all above stated categories.

Investigating for TB infection (TBI)

Prior to LTBI testing, individuals should be subjected to active TB screening to rule out active TB disease. Symptomatic evaluation and a CXR can be used as a screening tool for detecting TB disease. Once the active disease is ruled out, they are tested for TBI. Children under 5 years are given TPT after excluding the disease without testing for infection. All other high-risk categories need to undergo testing for infection before initiating TPT.

Either interferon-gamma release assays (IGRAs) or tuberculin skin test (TST) is used to diagnose LTBI. The Mantoux test, the method used in Sri Lanka, is a type of TST. In addition, the IGRA facility is also established in the National Tuberculosis Reference Laboratory (NTRL, Welisara) and will be available for clinically high-risk groups such as PLHIV, and patients on dialysis.

Tuberculosis Preventive Treatment

In the prophylactic treatment for TBI, one or two main drugs used in the treatment of TB (Isoniazid (H), Rifampicin ®, Ethambutol €, Pyrazinamide (Z)) are used in smaller doses. The treatment regimens thus prioritized are 6H (isoniazid daily monotherapy for 6 months), 3HR (isoniazid and rifampicin daily for 3 months), and 3HP (once a week treatment with isoniazid and rifapentine for 3 months). Currently, the 6H regimen is widely used in Sri Lanka while 3HR is used to a lesser extent. However, having to be used daily for six months, the 6H regimen has reduced in popularity among the target groups.

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Irregular or inadequate treatment reduces the protective efficacy of the TPT regimen. Further, poor adherence or early cessation of TPT can potentially increase the risk of the individual developing TB including drug-resistant TB. It is known that the efficacy of TPT is greatest if at least 80% of the doses are taken within the duration of the recommended regimen.

Whilst currently the 6H treatment regimen is being used in the country, a more user-friendly 3HP regimen will be available within the country shortly. From a programme perspective, administering a shorter, weekly dose would greatly enhance the TPT completion rates in turn, reducing the TB caseload.

Challenges

When observing the chest clinic data on patient recruitment for TPT and follow-up has shown that retention in care has been a challenge. There are many challenges identified in relation to the diagnosis of TBI and initiation of TPT at the field level. Having to pay two visits for Mantoux testing (for administration and reading) is a drawback with many patients not following up with the second visit. Further, Mantoux testing for TB infection is currently carried out in limited healthcare settings, mainly in the district chest clinics. The main prophylactic regimen currently used for TPT is 6H which is a comparatively longer regimen which may lead to poor compliance among patients. Further, the lack of communication and counselling may lead to a higher loss to follow-up among the TPT population. Currently, the national programme is trying to address these barriers through the expansion of TST services within districts, the introduction of shorter regimens and capacity building among healthcare workers for counselling along with follow-up of recruited patients for TPT.

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3. Latent tuberculosis infection: Updated and consolidated guidelines for programmatic management- WHO https://www.who.int/publications/i/item/9789241550239
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Table 1 : Water Quality Surveillance
Number of microbiological water samples February 2023

District	MOH areas	No: Expected *	No: Received
Colombo	15	90	**10**
Gampaha	15	90	**NR**
Kalutara	12	72	**85**
Kalutara NIHS	2	12	**31**
Kandy	23	138	**59**
Matale	13	78	**2**
Nuwara Eliya	13	78	**19**
Galle	20	120	**109**
Matara	17	102	**8**
Hambantota	12	72	**NR**
Jaffna	12	72	**175**
Kilinochchi	4	24	**14**
Mannar	5	30	**NR**
Vavuniya	4	24	**53**
Mullatvu	5	30	**7**
Batticaloa	14	84	**0**
Ampara	7	42	**0**
Trincomalee	11	66	**NR**
Kurunegala	29	174	**65**
Puttalam	13	78	**NR**
Anuradhapura	19	114	**2**
Polonnaruwa	7	42	**0**
Badulla	16	96	**0**
Moneragala	11	66	**0**
Rathnapura	18	108	**NR**
Kegalle	11	66	**2**
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 02nd – 08th Mar 2024 (10th Week)

RDHS	Dengue Fever		Dysentery		Encephalitis		En. Fever		F. Poisoning		Leptospirosis		Typhus F.		Viral Hep.		H. Rabiies		Chickenpox		Meningitis		Leishmaniasis		Tuberculosis		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	A	B	T*	C**
Colombo	170	3532	0	5	0	1	0	2	0	3	8	73	0	0	0	3	0	0	12	92	1	10	0	0	42	387	100	100
Gampaha	68	1431	0	5	0	4	0	2	0	0	26	127	1	2	0	1	0	0	9	62	1	26	1	5	27	220	93	99
Kalutara	43	867	0	9	0	0	0	3	0	0	23	142	1	2	0	5	0	0	8	125	1	17	0	0	8	139	92	100
Kandy	68	1365	0	5	0	0	0	0	0	3	7	62	1	3	1	2	0	0	8	148	0	4	3	12	0	139	100	100
Matale	11	278	0	1	0	0	0	1	0	4	4	38	0	0	0	1	0	0	4	19	2	3	2	64	0	19	92	100
Nuwara Eliya	10	152	1	17	0	2	0	1	0	9	0	62	3	11	0	1	0	0	6	45	0	3	0	0	3	58	92	100
Galle	40	879	2	14	0	6	0	1	0	16	20	203	6	29	0	4	0	0	20	126	1	20	0	3	22	93	95	99
Hambantota	22	331	1	4	0	0	0	0	0	0	12	203	1	13	0	2	0	0	6	64	0	9	11	111	5	26	100	100
Matara	28	290	0	2	0	2	0	0	2	4	11	89	1	6	0	0	0	0	10	66	2	34	5	27	0	12	100	100
Jaffna	143	4516	0	21	0	1	1	1	8	15	0	12	18	293	0	3	0	1	6	69	2	5	0	0	2	36	100	93
Kilinochchi	8	241	1	1	0	0	0	0	0	1	0	9	0	6	0	0	0	0	0	1	0	2	0	0	0	7	100	100
Mannar	4	165	0	0	0	0	0	1	0	0	1	15	0	5	0	0	0	0	0	4	0	2	0	1	1	15	100	100
Vavuniya	5	115	0	0	0	0	0	0	1	1	4	46	0	1	1	4	0	0	0	7	1	5	2	3	0	5	100	100
Mullaitivu	5	162	0	3	0	0	0	0	0	2	3	45	1	8	0	0	0	0	0	2	0	0	2	3	1	5	100	100
Batticaloa	67	873	4	38	1	5	0	1	6	9	2	18	0	1	1	5	0	0	0	14	2	17	0	1	0	17	100	100
Ampara	9	106	1	11	0	1	0	0	1	7	5	90	0	1	0	3	0	0	0	37	1	15	0	3	2	49	71	100
Trincomalee	13	333	0	5	0	0	0	1	0	1	4	70	1	5	0	0	0	0	3	10	0	3	2	6	4	15	100	100
Kurunegala	67	1054	0	5	0	4	0	0	1	336	11	201	2	12	0	2	0	2	9	99	4	59	22	119	17	115	100	98
Puttalam	14	540	0	0	0	1	0	0	0	0	1	105	0	4	0	0	0	0	2	33	2	11	0	3	5	42	91	98
Anuradhapura	42	399	0	3	0	0	0	0	0	2	13	155	2	14	2	6	0	0	7	42	1	16	19	189	9	51	96	100
Polonnaruwa	11	139	0	6	0	0	0	0	0	2	2	95	0	1	0	1	0	0	2	41	0	6	13	99	0	17	100	100
Badulla	11	446	0	7	0	1	0	0	3	8	8	149	0	6	0	5	0	0	12	76	2	7	0	7	5	42	93	99
Monaragala	17	302	1	4	0	0	0	0	0	0	12	331	1	13	0	7	0	0	2	23	3	34	10	47	2	20	91	100
Ratnapura	38	651	1	18	0	0	0	0	0	2	27	372	0	8	0	7	0	1	15	79	3	29	5	55	0	53	95	100
Kegalle	34	766	0	3	0	2	0	0	2	2	18	142	0	5	0	4	0	0	11	166	0	17	0	11	2	63	100	100
Kalmunai	27	433	1	8	0	0	0	0	0	0	0	30	0	1	0	0	0	0	5	38	0	3	0	0	2	32	100	100
SRILANKA	**975**	**20366**	**13**	**195**	**1**	**30**	**1**	**14**	**24**	**427**	**222**	**2884**	**39**	**450**	**5**	**66**	**0**	**4**	**157**	**1488**	**29**	**357**	**97**	**769**	**159**	**1677**	**96**	**99**

Source: Weekly Returns of Communicable Diseases (esurvillance.epid.gov.lk). T=Timeliness refers to returns received on or before 15th Mar, 2024 Total number of reporting units 358 Number of reporting units data provided for the current week: 351 C**-Completeness

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

Table 2: Vaccine-Preventable Diseases & AFP

02nd – 08th Mar 2024 (10th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2024	Number of cases during same week in 2023	Total number of cases to date in 2024	Total number of cases to date in 2023	Difference between the number of cases to date in 2024 & 2023
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	00	00	00	00	00	00	00	00	00	00	01	14	18	-22.2 %
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Mumps	04	00	02	00	00	00	01	01	00	08	06	61	40	52.5 %
Measles	00	00	01	00	00	00	00	00	00	01	00	121	00	0 %
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	00	01	-100 %
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Japanese Enceph-alitis	00	00	00	00	00	00	00	00	00	00	00	01	00	0 %
Whooping Cough	00	00	00	00	00	00	00	00	00	00	01	01	02	-50 %

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**

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