

# LANKA

# Vol. 46 No. 16

### LEGIONELLOSIS Part II

### Treatment

### There is no vaccine currently available for Legionnaires' disease.

The nonpneumonic form of infection is selflimiting and does not require medical interventions, including antibiotic treatment. Patients with Legionnaires' disease always require antibiotic treatment following diagnosis.

### **Prevention and Control**

The public health threat posed by legionellosis can be addressed by implementing water safety plans by authorities responsible for building safety or water system safety. These plans must be specific to the building or water system and should result in the introduction and regular monitoring of control measures against identified risks including *Legionella*. Although it is not always possible to eradicate the source of infection, it is possible to reduce the risks substantially.

Prevention of Legionnaires' disease depends on applying control measures to minimize the growth of Legionella and dissemination of aerosols. These measures include good maintenance of devices, including regular cleaning and disinfection and applying other physical (temperature) or chemical measures (biocide) to minimize growth. Some examples are:

• regular maintenance, cleaning and disinfection of cooling towers together with frequent or continuous addition of biocides;  installation of drift eliminators to reduce dissemination of aerosols from cooling towers;

13<sup>th</sup> – 19<sup>th</sup> April 2019

 maintaining an adequate level of a biocide such as chlorine in a spa pool along with a complete drain and clean of the whole system at least weekly;

 keeping hot and cold water systems clean and either keeping the hot water above 50 °C (which requires water leaving the heating unit to be at or above 60 °C) and the cold below 25 °C and ideally below 20 °C or alternatively treating them with a suitable biocide to limit growth, particularly in hospitals and other health care settings, and aged-care facilities;

reducing stagnation by flushing unused taps in buildings on a weekly basis.

Applying such controls will greatly reduce the risk of *Legionella* contamination and prevent the occurrence of sporadic cases and outbreaks. Extra precautions may be required for water and ice provided to highly susceptible patients in hospitals including those at risk of aspiration (for example, ice machines can be a source of *Legionella* and should not be used by highly susceptible patients).

Control and prevention measures must be accompanied by proper vigilance on the part of general practitioners and community health services for the detection of cases.

### Surveillance of Legionellosis

Legionellosis is now a statutory notifiable disease in most industrialized countries although it is not included into the list of notifiable diseases

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in Sri Lanka. Combined microbiological and epidemiological case definitions are used for surveillance of legionellosis.

### Case classifications for legionellosis

Depending on the diagnostic method used and the result, cases are classified microbiologically as either confirmed or presumptive.

Based on the patient's clinical history, cases are classified as one of the following:

 Legionnaires' disease (relevant pneumonic illness and microbiological evidence of infection)

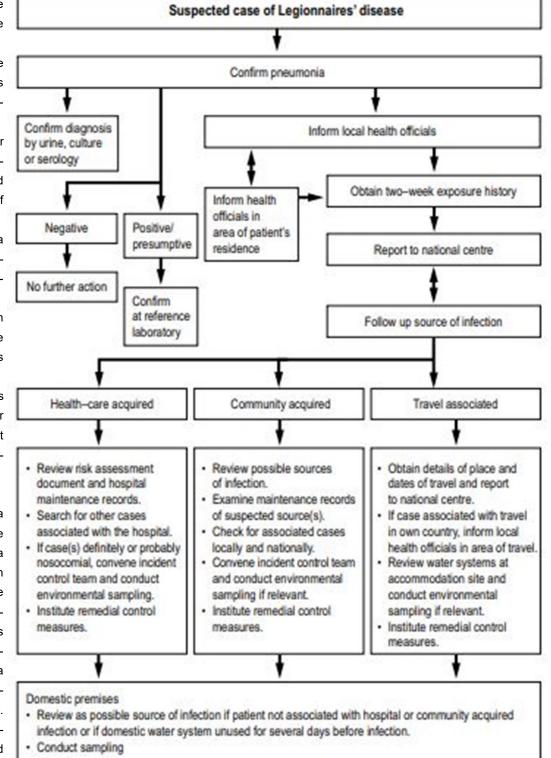
 Pontiac fever or similar illness (relevant nonpneumonic illness and microbiological evidence of infection)

 Asymptomatic Legionella infection (no illness compatible with the microbiological result)

 Legionella infection (microbiological evidence of infection but symptoms not known)

 Suspected legionellosis (relevant pneumonic or non-pneumonic illness but no supporting microbiological evidence).

Single cases reported to a surveillance scheme are normally entered into a database that is then searched for links in time or place to previously reported cases. If no links are found, the environmental actions in response to a single case will be determined locally or nationally. However, whenever possible, these actions should include:



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- A review of the possible sources of infection
  - A risk assessment of potential or suspected sources

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Table 1: Selected notifiable diseases reported by Medical Officers of Health	06 <sup>th –</sup> 12 <sup>th</sup> April 2019 (15 <sup>th</sup> Week)
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	* 5	100	95	86	100	66	100	98	66	100	93	100	93	100	78	100	100	85	100	100	97	66	100	100	66	100	100	98	
WKCD	*	48	55	60	64	54	26	63	74	62	26	45	47	48	37	54	51	34	58	63	39	58	64	63	43	62	61	54	
Leishmania- sis	в	2	28	m	11	100	0	1	240	195	0	4	0	-	1	0	ω	0	287	4	176	80	6	6	52	12	0	1218	
Leishr sis	- -	0	0	0	0	12	0	0	49	26	0	0	0	0	0	0	0	0	12	0	13	-	0	0	2	2	0	1	
Itis	в	19	8	35	19	m	17	25	14	m	9	2	0	7	2	m	m	4	21	15	35	11	60	55	55	13	7	442	
Meningitis	A	1	0	2	2	0	0	0	0	0	0	0	0	1	0	0	0	0	-	ч		-	ъ	m	ω	-	0	22	
		174	112	266	88	28	18	157	127	115	111	m	0	37	0	76	58	80	239	69	215	119	91	89	158	182	82	2694	Communicable Diseases (WRCD).
Cnickenpox	B	6	9	12	22	0		4	ъ		12	0	0	2	0	8	2	ω	18	2	17	4	m	4	7	6	11	162	
	B	0	0	0			0	0	0	0	0	0	0	0	0		0	0	0	0	-	0	0	0	2	0	0	9	
Rabies	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	-	
		4	1	2	2	m	4	2	1	8	1	1	0	0	0	0	9	Ч	13	0	12	7	10	31	6	63	Ч	182	
viral Hepatitis	AB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	10	0	11	
	8	7	2	m	29	4	26	18	55	15	244	19	9	4	Ŋ		Ч	m	8	8	22	m	38	43	12	20	Ч	597	
r ypnus Fever	- -	0	0	0		0	7			0	2		0	0	0	0		0	0	0	0	-		m	0	m	0	17	
OILOSIS	~	55	32	170	23	21	12	105	31	89	20	14	0	33	11	16	14	m	76	12	71	31	69	114	214	23	17	1306	
Leptospirosis	AB		Μ	14	0	0	0	12	9	œ	0	0	0		0	2	0	0	m	0	9		9		14	4	0	82	
		22	14	28	8	7	0		ъ	2	ω	0	Ч	m	Ч	2	4	4	4	0	1	0	55	73	8	20	0	260	
r oou Poisoning	B	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0		0	0	9	
	A	ъ	1	ъ	1	0	4	-	0	1	7	6	7	15	4	6	0	0	m		m	ц.	4	0	9	0	Ч	85	
Enteric Fever	B	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	
	A	2	1	m	S	2	1	4	0	4	S	-	1	m	0	0	0	0	ß	2	ъ	-	1	2	18	10	0	76	
Encepnaliti s	AB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	m	0	0	4	í.
	В	14	9	27	22	11	16	21	m	4	49	9	1	9	9	36	11	S	23	10	8	7	15	23	30	14	20	394	ises (WRC
Uysentery	A	-		4	2	0	m	2	0	0	9	0	H	0	0	0	2	0	2	0	0	0	0	2	0	0	H	27	le Dise
		3134	1844	868	834	184	58	469	338	506	1707	77	59	146	87	674	86	450	570	205	182	90	238	158	614	383	355	14316	mmunicab
Dengue Fever	8	136	64	42	51	7	2	23	8	29	31	H	Ч	m	0	27	ω	17	32	S	ъ	Ŋ	6	ω	34	10	17	565 1	Irns of Cor
Division	A	Colombo	Gampaha	Kalutara	Kandy	Matale	NuwaraEliya	Galle	Hambantota	Matara	Jaffna	Kilinochchi	Mannar	Vavuniya	Mullaitivu	Batticaloa	Ampara	Trincomalee	Kurunegala	Puttalam	Anuradhapura	Polonnaruwa	Badulla	Monaragala	Ratnapura	Kegalle	Kalmune	SRILANKA	Source: Weekly Returns of Communicable Diseases (WRCD).

13<sup>th</sup>- 19<sup>th</sup> April 2019

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# Table 2: Vaccine-Preventable Diseases & AFP

# 13th- 19th April 2019

### 06th - 12th April 2019 (15th Week)

Disease	No. of	Cases b	y Province	e					Number of cases during current	Number of cases during same	Total num- ber of cases to	Total number of cases to date in	Difference between the number of cases to date in	
	W	С	S	Ν	E	NW	NC	U	Sab	week in 2019	week in 2018	date in 2019	2018	2019 & 2018
AFP*	00	00	00	00	00	01	00	00	00	01	02	28	17	64.7%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Mumps	01	00	01	01	03	03	00	00	01	10	07	112	122	-8.1 %
Measles	02	01	01	00	02	00	00	01	01	08	00	64	37	72.9 %
Rubella	00	00	00	00	00	00	00	00	00	00	00	00	04	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	06	08	- 25 %
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Japanese En- cephalitis	00	00	00	00	00	00	00	00	00	00	00	07	13	- 46.1%
Whooping Cough	00	00	00	00	01	01	00	00	00	02	03	25	13	92.3 %
Tuberculosis	16	16	05	12	01	04	00	06	01	61	65	2470	2100	17.6 %

### 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.

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# **ON STATE SERVICE**

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