



WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit
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Melioidosis (Whitmore's Disease)

Melioidosis is an infectious disease caused by a bacterium called *Burkholderia pseudomallei*. The bacteria are found in contaminated water and soil and spread to humans and animals through direct contact with the contaminated source. Melioidosis is endemic in the tropical and subtropical zones of South East Asia and Northern Australia. Although Sri Lanka is not considered as a country where melioidosis is endemic, an increasing number of cases have been reported recently. The first published report of melioidosis in Sri Lanka was in 1927 in a European tea broker resident in Sri Lanka. People acquire the disease by inhaling dust contaminated by the bacteria and when the contaminated soil comes in contact with

damaged skin.

Melioidosis occurs throughout the year in Sri Lanka with increasing prevalence during rainy weather, during floods and other natural disasters. Infection occurs in all age groups, including children and in both sexes but the highest incidence is seen in middle aged males. Risk factors for the disease include occupational exposure to contaminated water and mud, especially by working in paddy fields which are suitable environmental conditions that prevail in Sri Lanka. In addition, military personnel, adventure travelers, workers in construction sites, fishing, and forestry belong to the high risk group. Malaysia and Thailand have reported the organism in deforested, irrigated and cultivated areas.



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Symptoms

There are no unique symptoms in Melioidosis. Patients with the disease usually have fever. Symptoms most commonly affect lungs and the effects can range from mild bronchitis to severe pneumonia. As a result, patients also may experience headache, and loss of appetite, cough, chest pain, and general muscle soreness. The infection can also be localized to infection on the skin (cellulites) with associated fever and muscle aches. It can spread from the skin through the blood to become a chronic form of melioidosis affecting the heart, brain, liver, kidneys, joints and eyes. People with Diabetes mellitus, renal disease, liver disease or alcoholism are most likely to get the severe form of the infection. The disease may be mistaken for other fevers such as Dengue or Leptospirosis. It is very rare for people to get the disease from another person even though a few cases have been documented.

Diagnosis

A diagnosis of *B. pseudomallei* infection requires both clinical suspicion and supporting laboratory evidence. The variety of clinical manifestations of infection makes melioidosis difficult to diagnose clinically. The definitive diagnosis depends on the isolation and identification of *B. pseudomallei* from clinical specimens (blood, urine, sputum or skin-lesion sample). A delay in diagnosis can be fatal, since empirical antibiotic regimens used for suspected bacterial sepsis often do not provide adequate coverage for *B. pseudomallei*. A direct polymerase-chain-reaction assay of a clinical sample may provide a more rapid test result than culture, but the assay is less sensitive, especially when performed on blood. Serologic testing alone is inadequate for confirming the diagnosis, especially in endemic regions where the background seropositivity rate can be more than 50%. There are well established antibiotic treatment guidelines for the treatment of Melioidosis and relapses may occur mostly in people who don't complete the full course of antibiotics. A careful search for internal-organ abscesses such as with the use of computed tomography or ultrasonography of the abdomen and pelvis is recommended. Adjunctive therapy for abscesses includes drainage of collections, aspiration and washout of septic joints.

Prevention

Melioidosis is a potentially preventable disease. There are no vaccines for humans to prevent the disease and people who live in or are visiting areas where Melioidosis is common should take following action to prevent the infection. If a traveler devel-

ops pneumonia or septic shock upon returning from tropical or subtropical areas, the doctors need to consider Melioidosis as a possible diagnosis.

Avoid contact with soil and stagnant water if you have open wounds, diabetes, or chronic kidney disease.

Be vigilant about avoiding exposure by inhalation during severe weather events (floods/heavy rains).

Healthcare workers should wear masks, gloves, and gowns.

Meat cutters and processors should wear gloves and disinfect knives regularly.

If drinking dairy products, be sure they are pasteurized.

Get screened for melioidosis if you're about to start immunosuppressive therapy.

Further clinical and epidemiological studies are needed to identify the real burden of Melioidosis in Sri Lanka.

Sources

1. Melioidosis, available at <http://www.nejm.org/doi/pdf/10.1056/NEJMra1204699>
2. Melioidosis in Sri Lanka, Available at <http://sljid.sljol.info/articles/abstract/10.4038/sljid.v2i1.3801/>. Compiled by
3. Available at <https://www.healthline.com/health/melioidosis>
Dr. A.M.U.Prabha Kumari of the Epidemiology Unit

Table 1: Selected notifiable diseases reported by Medical Officers of Health 30th- 06th Oct 2017 (40thWeek)

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	207	30925	1	51	0	3	0	25	0	32	7	113	0	2	0	14	0	0	3	308	1	26	0	1	21	94
Gampaha	206	28777	0	29	0	13	0	16	0	8	1	51	0	12	0	14	0	1	10	239	2	27	0	3	7	100
Kalutara	67	9617	1	49	0	3	0	16	0	52	14	289	0	7	2	11	0	1	7	452	6	129	0	1	2	100
Kandy	183	11929	0	61	0	5	0	7	0	10	1	44	3	115	0	12	0	1	1	213	0	34	0	11	13	100
Matale	30	2595	1	20	0	4	0	1	0	10	0	30	0	2	1	8	0	0	2	44	1	53	0	6	13	100
NuwaraEliya	6	810	1	24	0	8	0	31	0	53	2	49	3	159	0	18	0	0	2	266	1	39	0	0	59	100
Galle	31	5489	0	44	0	13	0	19	0	16	17	308	5	64	0	5	0	1	6	335	0	61	0	1	17	100
Hambantota	47	3026	0	21	0	7	0	7	0	24	0	43	1	63	0	9	0	1	2	175	0	19	1	316	10	100
Matara	50	5844	0	32	0	8	0	3	1	14	2	176	0	23	0	8	0	1	5	201	1	8	3	129	10	100
Jaffna	126	4187	14	289	2	21	3	34	0	55	0	28	3	414	0	3	0	0	0	170	0	34	0	0	42	88
Kilinochchi	6	447	2	24	0	1	0	11	0	1	0	4	1	15	0	2	0	0	0	3	0	10	0	3	24	100
Mannar	2	509	1	8	0	0	0	2	0	1	0	2	1	3	0	0	0	0	0	14	0	0	0	0	16	100
Vavuniya	7	794	1	19	0	0	3	67	0	6	0	26	0	9	0	7	0	0	0	31	0	3	0	9	13	100
Mullaitivu	6	320	0	15	1	4	0	4	0	5	1	19	0	4	0	1	0	1	0	16	0	5	1	2	8	100
Batticaloa	26	4665	10	125	0	9	0	15	1	24	0	22	0	0	0	4	0	1	0	157	0	27	0	1	23	100
Ampara	11	811	2	34	0	2	0	1	0	1	1	17	0	1	0	4	0	0	2	166	1	40	0	4	33	100
Trincomalee	16	4729	4	30	0	2	0	12	0	21	0	23	0	12	0	17	0	0	1	140	1	23	0	10	19	100
Kurunegala	62	9654	2	75	0	10	0	3	1	54	1	60	1	25	0	18	0	3	5	432	1	65	3	132	11	100
Puttalam	111	5279	2	46	0	2	0	2	0	9	1	26	0	11	0	1	0	0	5	131	0	40	0	3	11	100
Anuradhapur	14	2506	2	34	0	3	0	1	2	15	0	62	2	18	0	13	0	1	2	338	2	65	9	210	7	100
Polonnaruwa	9	1225	1	17	0	5	0	9	0	8	1	37	0	7	0	8	0	0	4	199	0	18	4	116	4	100
Badulla	25	3256	4	96	0	8	1	9	0	5	4	109	0	103	0	53	0	1	3	323	2	180	0	13	7	100
Monaragala	61	2323	0	63	0	3	0	1	0	9	1	116	2	115	1	19	0	1	4	85	1	64	0	17	28	100
Ratnapura	78	10548	4	138	0	78	1	13	0	8	7	514	1	28	3	71	0	0	5	256	0	138	0	21	11	100
Kegalle	93	8868	0	33	1	12	0	5	1	22	3	87	2	67	0	12	0	0	8	250	1	61	0	10	10	100
Kalmune	28	2236	3	91	0	6	0	4	0	284	0	9	0	0	0	3	0	0	1	128	1	29	0	0	12	100
SRILANKA	1508	161369	56	1468	4	230	8	318	6	747	64	2264	25	1279	7	335	0	14	78	5072	22	1198	21	1019	16	99

Source: esurveillance.epid.gov.lk

*T=Timeliness refers to returns received on or before 06th October, 2017 Total number of reporting units 344 Number of reporting units data provided for the current week: 341 C** -Completeness

Table 2: Vaccine-Preventable Diseases & AFP

30th- 06th Oct 2017 (40thWeek)

Disease	No. of Cases by Province									Number of cases during current week in 2017	Number of cases during same week in 2016	Total number of cases to date in 2017	Total number of cases to date in 2016	Difference between the number of cases to date in 2017 & 2016
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	00	01	00	00	00	00	00	01	01	03	00	53	53	0%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Mumps	01	01	00	00	00	00	00	02	00	04	03	247	304	- 18.7%
Measles	01	00	00	00	00	00	00	00	00	01	10	175	340	- 48.5%
Rubella	00	00	00	00	00	00	00	00	00	00	00	10	08	25%
CRS**	00	00	00	00	00	00	00	00	00	00	00	01	00	0%
Tetanus	00	00	00	00	00	00	00	00	00	00	00	16	08	100%
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	21	15	40%
Whooping Cough	00	00	00	00	00	00	00	00	00	00	02	18	56	- 67.8%
Tuberculosis	91	15	11	13	13	40	14	04	31	232	154	6493	7164	-9.3%

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

Dengue Prevention and Control Health Messages

Look for plants such as bamboo, bohemia, rampe and banana in your surroundings and maintain them

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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@slt.net.lk. **Prior approval should be obtained from the Epidemiology Unit before publishing data in this publication**

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