

## LEISHMANIASIS

### Background

This case definition was developed by AFHSC for the purpose of epidemiological surveillance of a condition important to military-associated populations.

### Clinical Description

Leishmaniasis is typically a zoonosis with a variety of mammalian reservoir hosts, including canines and rodents. The vectors are female phlebotomine sand flies. Leishmaniasis is endemic in the Americas from northern Argentina to southern Texas, southern Europe, Asia, the Middle East, and Africa, but not in Australia or Oceania. Organisms of the genus *Leishmania* cause two major forms of disease:

1. Cutaneous and mucosal/mucocutaneous: appearance of one or more lesions on uncovered parts of the body. The face, neck, arms and legs are the most common sites. A nodule appears at the site of inoculation, enlarges, and becomes an indolent ulcer. The sore remains in this stage for a variable time before healing, and leaves a depressed scar. Certain strains can disseminate and cause nasopharyngeal mucosal lesions in some individuals; these sequelae involve nasopharyngeal tissues and can be disfiguring.
2. Visceral: a chronic systemic illness with persistent irregular fever, hepatosplenomegaly, lymphadenopathy, pancytopenia and weight loss as its main symptoms.<sup>1</sup>

### Case Definition and Incidence Rules

For surveillance purposes, a case of leishmaniasis is defined as:

- *One hospitalization or outpatient medical encounter* with any of the defining diagnoses of leishmaniasis in *any* diagnostic position (see ICD9 and ICD10 code lists below); or
- One record of a reportable medical event of leishmaniasis.

#### **Incidence rules:**

For individuals who meet the case definition:

- The incidence date is considered the date of onset documented in a reportable medical event, or the first hospitalization or outpatient medical encounter with a defining diagnosis of leishmaniasis.
- An individual is considered an incident case only *once per lifetime*.

#### **Exclusions:**

- None

<sup>1</sup> Armed Forces Reportable Medical Events Guidelines and Case Definitions. Armed Forces Health Surveillance Center, March 2012.



## Codes

The following ICD9 and ICD10 codes are included in the case definition:

Condition	ICD-10-CM Codes	ICD-9-CM Codes
Leishmaniasis	B55 (Leishmaniasis)	--
	- B55.0 (visceral leishmaniasis)	085.0 (visceral)
	- B55.1 (cutaneous leishmaniasis)	085.1 (cutaneous, urban) 085.2 (cutaneous, Asian desert) 085.3 (cutaneous, Ethiopian) 085.4 (cutaneous, American)
	- B55.2 (mucocutaneous leishmaniasis)	085.5 (mucocutaneous, American)
	- B55.9 (leishmaniasis, unspecified)	085.9 (leishmaniasis, unspecified)

## Development and Revisions

- In April of 2014 the case definition was updated to include ICD10 codes.
- This case definition for leishmaniasis was developed in December 2004 by the Medical Surveillance Monthly Report (MSMR) staff for use in a MSMR article on leishmaniasis.<sup>2</sup> The case definition was developed based on reviews of the ICD9 codes, the scientific literature, and previous AFHSC analyses.

### *Case Definition and Incidence Rule Rationale*

- This case definition uses a lifetime incidence rule, therefore, it does not distinguish between cutaneous and visceral disease and does not capture recurrent cases.
- *If analysis requires “deployment-associated” incident case counts*, the initial defining encounter must have occurred while the individual was deployed to, or within 30 days of returning from, a theater of operations of interest and the deployment must have been for 30 days or longer. As of April 2014, AFHSC includes the following operations as associated with deployment in their analyses: Enduring Freedom (OEF), Iraqi Freedom (OIF), and New Dawn (OND).

The specification of “within 30-days of returning” represents the best judgment of a reasonable time frame to allow for post-deployment screening to prompt medical evaluations that result in the diagnosis of leishmaniasis. When estimating “deployment-associated” incident cases, it should be noted that a causal association for leishmaniasis due to an event that occurred during a deployment or direct combat cannot be determined using data available to AFHSC.

<sup>2</sup> Armed Forces Health Surveillance Center. Leishmaniasis Among U.S. Armed Forces, January 2003-November 2004. *Medical Surveillance Monthly Report (MSMR)*. 2004 Nov/Dec; Vol 10(6): 2-4.



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**Reports**

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AFHSC reports on leishmaniasis in the following reports:

- Weekly: DoD Communicable Disease Weekly Report; Summary of Communicable Reportable Events by Service. Available on the AFHSC website at: <http://www.afhsc.mil>; see “Reports and Publications”.
- Monthly: AFHSC Reportable Events Monthly Report. Available on the AFHSC website at: <http://www.afhsc.mil>; see “Reports and Publications”.
- Monthly: AFHSC Deployment-Related Conditions of Special Surveillance Interest, U.S. Armed Forces, by month and service. *Medical Surveillance Monthly Report (MSMR)*.
- Annually: “Leishmaniasis Report” for the Armed Forces Pest Management Board; released in April of each year. Available on the AFHSC website at: <http://www.afhsc.mil>; see “Reports and Publications”.

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**Review**

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Apr 2014	Case definition reviewed and updated by the AFHSC Surveillance Methods and Standards (SMS) working group.
July 2010	Case definition reviewed and adopted by Surveillance Methods and Standards (SMS) working group.
Nov 2004	Case definition developed and reviewed by AFHSC MSMR staff.

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**Comments**

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None

