World Health Organization

REGIONAL OFFICE FOR Europe

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Manual on case management and surveillance of the leishmaniases in the WHO European Region

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ABSTRACT

This manual makes recommendations on a standardized approach to the case management and epidemiological surveillance of the leishmaniases across the WHO European Region. It was conceived as a practical guide for health workers dealing with the difficult task of diagnosing and treating different clinical forms of leishmaniasis, and for public health workers involved in surveillance systems for infectious diseases. Stepwise decision algorithms are presented for clinical and laboratory diagnosis, as well as for the treatment of various leishmaniasis entities endemic or frequently imported in the Region. The manual provides case and treatment outcome definitions for epidemiological surveillance. Particular attention is given to establishing monitoring and evaluation systems that provide sets of indicators allowing the performance of leishmaniasis control strategies to be properly assessed. Annexes include epidemiological information, antileishmanial drug information, and detailed standard operating procedures for diagnosis and treatment.

KEYWORDS

Leishmaniasis - diagnosis
Leishmaniasis - epidemiology
Leishmaniasis - parasitology
Leishmaniasis - prevention and control
Leishmaniasis, Cutaneous - diagnosis
Leishmaniasis, Cutaneous - epidemiology
Leishmaniasis, Cutaneous - parasitology
Leishmaniasis, Cutaneous - prevention and control
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Abbreviations

ABD	amphotericin B deoxycholate
ABLC	amphotericin B lipid complex
ACD	active case detection
ART	antiretroviral therapy
BUN	blood urea nitrogen
CBC	complete blood count
CL	cutaneous leishmaniasis
Dx	diagnosis
ECG	electrocardiogram
ELISA	enzyme-linked immunosorbent assay
IFAT	immunofluorescence antibody test
IM	intramuscular
IV	intravenous
LAB	liposomal amphotericin B
LCL	localized cutaneous leishmaniasis
MA	meglumine antimoniate
MCL	mucocutaneous leishmaniasis
ML	mucosal leishmaniasis
N	number (of patients)
NGO	nongovernmental organization
PAHO	Pan American Health Organization
PCD	passive case detection
PCR	polymerase chain reaction
qPCR	quantitative polymerase chain reaction
RDT	rapid diagnostic test
SAE	serious adverse event
Sb^{5+}	pentavalent antimony
SLA	soluble *Leishmania* antigens
SSG	sodium stibogluconate
TOC	test of cure
VL	visceral leishmaniasis

1. Introduction

Leishmaniasis is a protozoan disease caused by members of the genus *Leishmania*, parasites that infect numerous mammal species including humans, and transmitted by the bite of phlebotomine sandflies. Clinical manifestations of human leishmaniasis, caused by some 20 *Leishmania* species, are largely diverse and can be grouped into two main clinical forms: visceral leishmaniasis (VL), a severe condition that results from the dissemination of *Leishmania* in the phagocytes, mainly macrophages, and which is fatal in almost all cases if left untreated; and cutaneous leishmaniasis (CL), a benign but often disfiguring condition that is caused by the multiplication of *Leishmania* in the phagocytes of the skin and which has a tendency towards spontaneous resolution. The coexistence of these clinical forms in the same patient is rare.

Leishmaniases are endemic in over 98 countries, with more than 350 million people at risk. It is estimated that 1.3 million new cases of leishmaniasis (0.3 million VL and 1 million CL) occur every year. Like other neglected tropical diseases, leishmaniasis has the characteristics that it is not recognized and prioritized politically, and its visibility is not proportionate to its burden; that national strategies for its control are lacking; and that accurate information on its extent and distribution is often missing. Although estimated to cause the ninth largest disease burden among infectious diseases, leishmaniasis is largely ignored because of its complex epidemiology and ecology, lack of practical tools for its case management, and the inadequacy of current surveillance systems.

Systematic collection and analysis of data associated with leishmaniasis occurrence in populations are necessary for planning, implementation and evaluation of public health practice. Among other things, surveillance data are essential to determine disease trends over time (incidence) and space (spread) in endemic countries; to monitor disease importation into non-endemic countries; to identify boundaries of autochthonous transmission within territories; to detect epidemic clusters; and to monitor and evaluate efforts towards appropriate case management and control.