World Health Organization

The Use of Visceral Leishmaniasis Rapid Diagnostic Tests

Special Programme for Research & Training in Tropical Diseases (TDR) sponsored by

UNICEF/UNDP/World Bank/WHO

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WHO Library Cataloguing-in-Publication Data

The use of visceral leishmaniasis rapid diagnostic tests.

1.Leishmaniasis, Visceral - diagnosis. 2.Leishmaniasis, Visceral - prevention and control. 3.Antibodies, Protozoan - analysis. 4.Reagent strips - diagnostic use. 5.Immunologic tests -utlization. 6.Sensitivity and specificity. I.World Health Organization. II.UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases.

ISBN 978 92 4 159735 7 (NLM classification: WC 715)

Printed in the Philippines.

Contents

We would like to acknowledge the valuable contributions of many colleagues towards the development of this guide, in particular, K. Gidwani and B. Khanal who wrote the intial draft and others including: J. Alvar, M. Banerjee, F. Chappuis, P. Desjeux, S. El Safi, T. Laxmi, D. Mondal, M. Mbuchi, M. Mukhtar, B. Ostyn, S. Rijal, K. Ritmeijer, H. Schallig, S.N. Sharma, S. Sundar, M. Wasunna.

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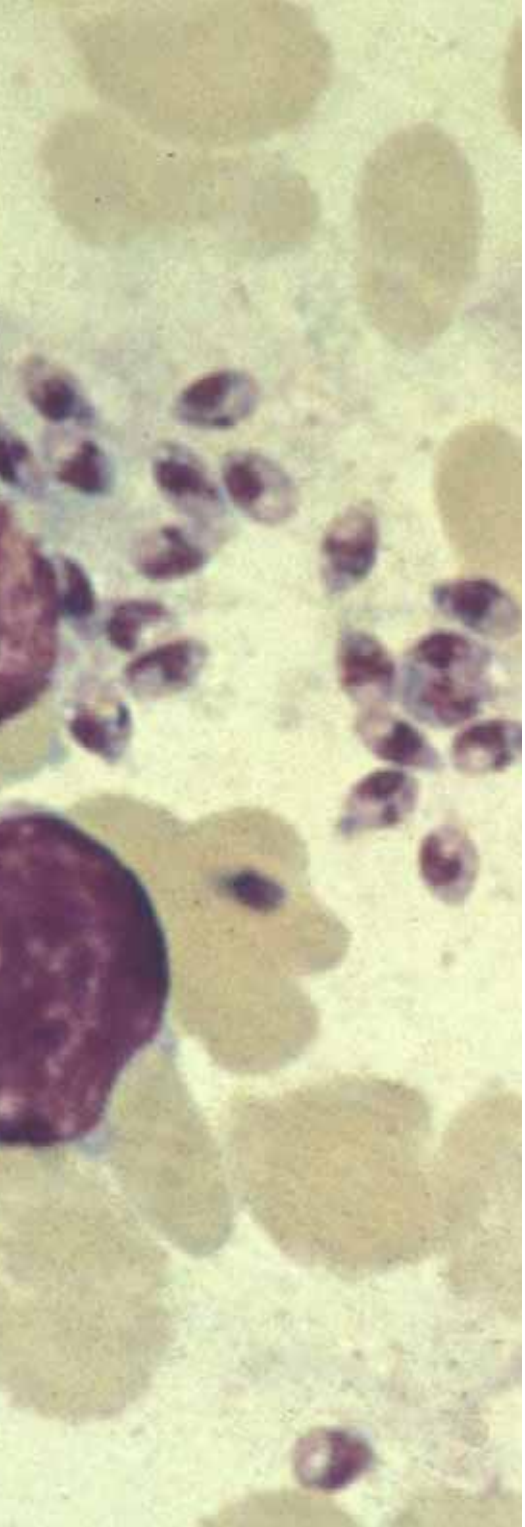

Introduction

A reliable diagnosis is critical in the management of visceral leishmaniasis (VL). Early case detection and treatment improve prognosis for the patient and can reduce transmission, especially in *Leishmania donovani* areas as there is no animal reservoir.

Rapid diagnostic tests (RDTs) for VL are amongst the most important innovations in the control of VL. These tests allow for patients to be diagnosed closer to their homes. The demand for RDTs was such that counterfeit products began circulating in the Indian subcontinent soon after they were adopted in the VL elimination initiative.

This user guide provides general information on RDTs for VL but is not a manual for patient management. We hope it will facilitate proper use of RDTs and improve the quality of VL care. Though it was developed with the Indian subcontinent in mind, this guide can, with some minor local adaptations, be useful in other settings.

I. What is visceral leishmaniasis (VL) and why is it important?

Visceral leishmaniasis (VL), also known as kala-azar, is an infection transmitted by sand flies and caused by parasites of the genus *Leishmania*. An estimated 500 000 people acquire this disease each year, 90% of whom live in India, Nepal, Bangladesh, Sudan and Brazil. VL is predominantly a disease of the poor living in remote communities with few health care facilities.

The disease is characterized by fever, weight loss, enlargement of the liver, spleen and lymph nodes and low blood cell counts, all of which are non-specific signs and not all of which are present in each individual case. A *Leishmania* infection does not always lead to clinical disease as asymptomatic infections outnumber the clinical cases.

Early and accurate laboratory diagnosis is essential before initiating treatment for several reasons:

i) the clinical features of VL resemble those of several other diseases including malaria or other conditions (infectious and not-infectious).

ii) effective drugs are available but they need to be administered for a minimum 3 weeks and are potentially toxic and expensive.

iii) VL is usually fatal if not treated in a timely manner.

iv) untreated cases are reservoirs of infection and therefore put the community at risk of ongoing transmission.