

## BOOK REVIEW\*

HUMAN LEPTOSPIROSIS: GUIDANCE FOR DIAGNOSIS, SURVEILLANCE AND CONTROL. Geneva, World Health Organization; International Leptospirosis Society, 2003. 109p. illus. ISBN 92 4 154589 5

### Why were these guidelines written?

Leptospirosis is a worldwide public health problem. In humid tropical and subtropical areas, where most developing countries are found, it is a greater problem than in those with a temperate climate. The magnitude of the problem in tropical and subtropical regions can be largely attributed to climatic and environmental conditions but also to the great likelihood of contact with a *Leptospira*-contaminated environment caused by, for example, local agricultural practices and poor housing and waste disposal, all of which give rise to many sources of infection. In countries with temperate climates, in addition to locally acquired leptospirosis, the disease may also be acquired by travellers abroad, and particularly by those visiting the tropics.

Leptospirosis is a potentially serious but treatable disease. Its symptoms may mimic those of a number of other unrelated infections such as influenza, meningitis, hepatitis, dengue or viral haemorrhagic fevers. Some of these infections, in particular dengue, may give rise to large epidemics, and cases of leptospirosis that occur during such epidemics may be overlooked. For this reason, it is important to distinguish leptospirosis from dengue and viral haemorrhagic fevers, etc. in patients acquiring infections in countries where these diseases are endemic. At present, this is still difficult, but new developments may reduce the technical problems in the near future. It is necessary, therefore, to increase awareness and knowledge of leptospirosis as a public health threat. The aim of these guidelines is to assist in this process.

In many respects, leptospirosis may be viewed as an emerging disease, and this has led to an increased interest and demand for information, notably in developing countries. New and less complicated diagnostic methods have been developed in recent years, allowing leptospiral infection to be identified without the real need for recourse to specialized reference laboratories.

### For whom were they written?

The target group to which these guidelines are directed consists of health workers (clinicians, laboratory technicians, microbiologists, public health workers, veterinarians and biologists with an interest in zoonoses, etc.) having no specialized knowledge of leptospirosis but who wish to be generally informed about the microorganism concerned and the disease that it may cause. This is not a handbook and avoids technical detail, but the interested reader can find further information in the Annexes and the general bibliography.

Since technical support is least available in many of those countries where the clinical problems are greatest, the emphasis is on relatively simple methods, even though some of them are not yet suited to routine practice. Information on the availability of technical support is provided

in the list of expert centres (Annex 1).

Leptospirosis is a health problem in both human and veterinary medicine, but these guidelines are concerned essentially with human leptospirosis. The indispensable role of veterinarians in leptospirosis control is fully appreciated, but the inclusion of information on veterinary leptospirosis would overload the general reader. The guidelines take the form of questions and answers, many of the questions being based on those put before reference centres over the years.

### Future perspectives

Leptospirosis is easily overlooked and relatively little is known about it. Few studies are therefore carried out on it, and this, in turn, results in the disease being overlooked. These guidelines aim to increase awareness of it. Better diagnosis and surveillance programmes may break the vicious circle.

The guidelines will be updated at regular intervals. The reader is referred to the Secretary of the International Leptospirosis Society (Annex 1) for further information on the Society and on leptospirosis.

The guidelines were drawn up by a joint team from the World Health Organization and the International Leptospirosis Society.

(Copy of the preface)

Table of Contents: I. Microbiology and Immunology; II. Clinical features and treatment; III. Laboratory support; IV. Animal sources of infection; V. Typing; VI. Transmission and exposure; VII. Prevention and intervention; VIII. Diagnostic services, surveillance and outbreak management. Annex I. Addresses of Expert Centres and the International Leptospirosis Society; Annex 2. Risk factors and risk groups; Annex 3. Control of leptospirosis; Annex 4. Surveillance; Annex 5. Clinical features and differential diagnosis of leptospirosis; Annex 6. Microscopy and staining; Annex 7. Pathogenic versus saprophytic leptospirae; Annex 8. Serotyping and preparation of rabbit antiserum; Annex 9. DNA-based classification; Annex 10. Serological techniques (MAT and ELISA); Annex 11. Serological techniques other than MAT and ELISA; Annex 12. Isolation and culture of Leptospirae; Annex 13. Isolation of Leptospirae using experimental animals; Annex 14. Polymerase chain reaction (PCR); Annex 15. Commercial tests, culture media, sera, monoclonal antibodies and *Leptospira* strains; Annex 16. Preparation of culture media; Annex 17: Safety in the laboratory.

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\*This book is available at the Library of the Instituto de Medicina Tropical de São Paulo