

EDITED BY:  
JOHN BUNTINE  
KIMBALL CROFTS

# Buruli Ulcer



A MANUAL FOR HEALTH CARE PROVIDERS

Management of  
*Mycobacterium*  
*ulcerans* disease



World Health Organization

**This manual was published thanks to financial support from:**



The Association Française Raoul Follereau (AFRF), France is an NGO dedicated to leprosy control in 31 countries worldwide. It also supports six research projects on leprosy, including the genome sequencing of *Mycobacterium leprae*. Long before the first International Conference on Buruli Ulcer Control and Research, Yamoussoukro, Côte d'Ivoire, 1998, AFRF had taken up the new challenge of the health and social problems caused by Buruli ulcer, working in Benin and Côte d'Ivoire since 1996. The Association also provides financial assistance to research activities on the genome sequencing of *Mycobacterium ulcerans* and on the drug treatment of the disease. It is now considering supporting other countries, starting with Ghana. AFRF is committed to mobilizing the international support needed to meet the challenges posed by Buruli ulcer.  
For more information, visit the AFRF website: <http://www.raoul-follereau.org>



ANESVAD, Spain is an NGO that has been working against leprosy and implementing health, social and educational projects in 28 of the poorest developing countries for over 30 years. Currently it counts on the support of over 135 000 partners and collaborators in Spain. It has recently begun work on Buruli ulcer in Côte d'Ivoire, carrying out programmes to detect the disease at an early stage and undertaking prevention, surgical treatment, training of specialized medical staff and social awareness campaigns, with the aim of limiting the impact of Buruli ulcer.

For more information, visit the ANESVAD website: <http://www.anesvad.org>



Médecins Sans Frontières (MSF) is an international humanitarian aid organization that provides emergency medical assistance to populations in danger in more than 80 countries. MSF Luxembourg has been involved in Buruli ulcer control activities in Benin since 1997. MSF has upgraded the Lalo Health Centre with surgical and laboratory facilities to improve the care of patients. Apart from surgical activities, other key activities include health education in affected communities, case-finding and training of health care providers, teachers and traditional healers. In terms of Buruli ulcer research, MSF is collaborating with the Institute of Tropical Medicine, Antwerp, Belgium. For more information, visit the MSF Luxembourg's website at: <http://www.msf.lu>



The Nippon Foundation, Japan is a private grant-making foundation whose activities cover social welfare, public health, volunteer support and overseas assistance. Since 1975 it has been working through the Sasakawa Memorial Health Foundation to aid WHO in its fight to eliminate leprosy. Starting in 1998, The Nippon Foundation also began providing financial support to the WHO Global Buruli Ulcer Initiative. The Foundation, in tandem with WHO and several academic institutions, is currently exploring options for improved surgical management of the disease. Finally, it is also collaborating with WHO, AFRF and other partners to find a drug treatment for Buruli ulcer. For more information, visit The Nippon Foundation's website at: <http://www.nippon-foundation.or.jp>

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EDITED BY:

**DOCTOR JOHN BUNTINE**  
Cornell Specialists' Centre  
Camberwell, Victoria, Australia

**DOCTOR KIMBALL CROFTS**  
Plastic Surgery Institute of Utah  
Provo, Utah, United States of America

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## Contributors

**Dr Pius Agbenorku**, Department of Plastic Surgery, Komfo Anokye Teaching Hospital, Kumasi, Ghana / **Sister Julia Aguiar**, Mission Catholique Zagnanado, Zagnanado, Benin / **Prof. Henri Assé**, Institute Raoul Follereau, Adzope, Côte d'Ivoire / **Dr John Buntine**, Cornell Specialists' Centre, Camberwell, Victoria, Australia / **Dr Kimball Crofts**, HART USA / **Dr Afua Hesse**, Department of Pediatric Surgery, Korle-Bu Teaching Hospital, Accra, Ghana / **Sister Joseph**, Wewak Hospital, Wewak, East Sepik Province, Papua New Guinea / **Prof. Christophe Oberlin**, Service de Chirurgie orthopédique et traumatologique, Groupe Hospitalier Bichat Claude-Bernard, Paris, France / **Dr G. Battista Priuli**, Hôpital St-Jean-de-Dieu, Tanguiéta, Benin / **Mrs May Smith**, Mossman District Hospital, Cairns, Australia / **Dr Christina Steffen**, Cairns Base Hospital, Cairns, Australia / **Dr Kingsley Asiedu**, Communicable Diseases Control, Prevention and Eradication, World Health Organization, Geneva, Switzerland / **Mr Anders Eklund**, Disability and Rehabilitation, Non-communicable Diseases and Mental Health, World Health Organization, Geneva, Switzerland / **Dr Ann Goerdt**, Disability and Rehabilitation, Noncommunicable Diseases and Mental Health, World Health Organization, Geneva, Switzerland / **Dr Jean Emmanuel**, Blood Safety and Clinical Technology, Health Technology and Pharmaceuticals, World Health Organization, Geneva, Switzerland

# Preface

This manual is addressed to health care providers dealing with *Mycobacterium ulcerans* disease (Buruli ulcer). The manual aims to achieve a better understanding of the disease, its clinical presentation and its surgical management. The manual is aimed particularly at district health care providers. A comprehensive protocol, adapted to each form and stage of the disease, is presented together with comments on the levels of resources and capabilities necessary to shorten the length of treatment, to prevent complications and to minimize undesired sequelae and thus to obtain the best possible outcome for each patient. Some sections include advice relevant to surgeons (e.g. relating to bone infection). However, the level to which particular comments are intended to apply should be clear from the context.

**Please note:** This manual is not intended to set down a standard of medical care. It is not a replacement for medical and paramedical textbooks. Adherence to the advice given will not ensure a successful outcome in every case. The manual should not be construed as including all proper methods of care or as excluding other methods of care. Ultimate judgement regarding a particular surgical procedure or treatment must be made by the involved health care provider consistent with the clinical presentation of the patient and the options available for diagnosis and treatment.

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