

Operational Guidelines on

Plague

Surveillance,
Diagnosis,
Prevention
and Control

Operational Guidelines on Plague Surveillance, Diagnosis, Prevention and Control



**World Health
Organization**

Regional Office for South-East Asia

WHO Library Cataloguing-in-Publication data

World Health Organization, Regional Office for South-East Asia.

Operational guidelines on plague surveillance, diagnosis, prevention and control.

1. Plague – diagnosis – epidemiology – prevention and control.
2. Disease Outbreaks.
3. Laboratory Techniques and Procedures.
4. Disaster Planning.
5. Mass Media.
6. Guidelines.

ISBN 978-92-9022-376-4

(NLM classification: WC 350)

© World Health Organization 2009

All rights reserved. Requests for publications, or for permission to reproduce or translate WHO publications, whether for sale or for noncommercial distribution, can be obtained from Publishing and Sales, World Health Organization, Regional Office for South-East Asia, Indraprastha Estate, Mahatma Gandhi Marg, New Delhi-110 002, India (fax: +91-11-23370197; e-mail: publications@searo.who.int).

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use.

This publication contains the collective views of an international group of experts and does not necessarily represent the decisions or the stated policy of the World Health Organization.

Printed in India

Contents

Preface	v
Acknowledgements	vii
1. Introduction	1
1.1 Historical perspective	2
1.2 Current global situation	3
1.3 Plague in the WHO South-East Asia Region	4
1.4 Purpose of the revised guideline	5
2. Epidemiology.....	7
2.1 Infectious agent	
2.2 The human host	8
2.3 Reservoir.....	9
2.4 Vector.....	11
2.5 Risk factors	12
2.6 Mode of transmission and period of communicability.....	13
2.7 Types of plague	16
3. Clinical manifestation	18
3.1 Bubonic plague.....	18
3.2 Septicaemic plague.....	19
3.3 Pneumonic plague	20
3.4 Differential diagnosis.....	21
4. Standard case definition.....	22
5. Laboratory in surveillance and diagnosis	24
5.1 Laboratory and surveillance	24
5.2 Collection, storage and transport of samples	24
5.3 Laboratory diagnosis of plague	30
5.4 Safe handling of infectious materials in the laboratory.....	32
6. Prevention and control.....	34
6.1 Surveillance.....	34
6.2 Organization of surveillance activities	35
6.3 Components of surveillance	37

6.4	Early warning signals	41
6.5	Rodent surveillance and de-ratting in seaports	42
6.6	Health education and community participation	44
6.7	Intersectoral coordination	45
6.8	Rodent control	45
6.9	Vector control	51
7.	Epidemic preparedness	54
7.1	Identification of rapid response teams	54
7.2	Logistics	54
7.3	Hospital preparedness	56
7.4	Manpower development	56
8.	Management of an outbreak	57
8.1	Identification of an outbreak	57
8.2	Outbreak investigation	58
8.3	Activation of Crisis Management Committee	60
8.4	Case management	62
8.5	Prophylaxis	65
8.6	Infection control	66
8.7	International Health Regulations (2005) and plague notification	71
9.	Partnership with mass media	74
10.	Lessons learnt from plague outbreaks	79
10.1	Plague outbreak in Surat and Beed, Maharashtra (India), 1994	79
10.2	Pneumonic plague in Shimla district, Himachal Pradesh (India), 2002	80
	References	85
	Further readings	86
Annexes		
1.	Method to collect bubo pus	87
2.	Instruction for the use of the rapid tests	88
3.	Decision instrument for the assessment and notification of events that may constitute a public health emergency of international concern	89

Preface

Plague is one of the important vector-borne zoonotic diseases that remains endemic in many natural foci around the world, including some countries of the South-East Asia Region. Human plague outbreaks have been reported from India and Indonesia in 2004 and 2007 respectively. Plague evokes considerable fear among people because of its historical reputation of killing millions of people. The lessons learned during the major plague outbreak in 1994 in Surat and the effective measures taken by the Government of India were helpful in early detection and rapid containment of the 2004 outbreak. Recent outbreaks have shown that plague may re-emerge in areas after a long period of silence. There is need, therefore, for concerted efforts to strengthen plague surveillance activity and build adequate capacity for timely detection and rapid containment of outbreaks should an outbreak occur in previously silent natural foci in all countries of the South-East Asia Region.

The need for regional “operational guidelines” to provide a comprehensive knowledge and information on plague epidemiology, surveillance, diagnosis, case management and prevention and control was felt for the benefit of national health authorities in all Member countries. These guidelines were published by the WHO South-East Asia Region in 2004 and it was necessary to revise and update them in the context of new case definitions adopted in 2006 and the enforcement of the International Health Regulations (2005) from June 2007.

The revised and updated operational guidelines have been developed through a process of consultation and inputs from a number of experts on plague and public health, both from within and outside the World Health Organization. As there is continued threat of plague outbreaks in our Region,

effective surveillance of existing natural foci of sylvatic plague and preparedness at the national, provincial and district levels is important. I am confident that these guidelines will be useful to those responsible for communicable disease surveillance and response in Member countries and will be of immense benefit to health officials responsible for emergency preparedness.



Dr Samlee Pliangbanchang
Regional Director

Acknowledgements

A revised and updated draft document was prepared by Dr Gyanendra N. Gongal and Dr K.N. Tewari. The original draft was peer reviewed extensively by a consortium of technical experts in various disciplines as listed below at the expert consultation meeting held in the Plague Surveillance Unit of the National Centre for Disease Control, Bengaluru, on 7-8 August 2009. The role of the following at the consultation is acknowledged:

- (1) Dr Veena Mittal, Joint Director & Head, Incharge, Central Plague Laboratory, National Centre for Disease Control, Delhi, India.
- (2) Dr Shyam Lal Biswas, Joint Director & Incharge, Plague Surveillance Unit, Bengaluru, India.
- (3) Drh Wilfried H. Purba, Head of Sub-Directorate for Zoonotic Diseases, Directorate of VBDC, Directorate-General, Disease Control & Environmental Health, Ministry of Health, Jakarta, Indonesia.
- (4) Dr Si Si Tun, Senior Consultant, 1000-bed General Hospital, Nay Pyi Taw, Myanmar.

Further technical input was also obtained from Dr Eric Bertherat, WHO HQ, before finalizing the final draft

预览已结束，完整报告链

<https://www.yunbaogao.cn/report/index/>