World Health Organization

EBOLA STRATEGY

Ebola and Marburg virus disease epidemics: preparedness, alert, control and evaluation

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Contents

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List of abbreviations and acronyms

AFRO	WHO Regional Office for Africa
COMBI	Communication for Behavioural Impact
DRC	Democratic Republic of Congo
EMRO	WHO Regional Office for the Eastern Mediterranean
EURO	WHO Regional Office for Europe
EVD	Ebola virus disease
IHR	International Health Regulations
MVD	Marburg virus disease
NFP	National Focal Point
NSAID	non-steroidal anti-inflammatory drug
OIE	World Organisation for Animal Health / Organisation mondiale de la santé animale
PPE	personal protective equipment
PRRS	porcine reproductive and respiratory syndrome
VHF	viral haemorrhagic fever
WHO	World Health Organization

Chapter 1 – Introduction

1. Introduction

1.1 Purpose of the document and target audience

Ebola or Marburg haemorrhagic fever outbreaks constitute a major public health issue in Sub-Saharan Africa. Of the 2 870 Marburg and Ebola cases documented between June 1967 and June 2011, 270 (9%) were health-care workers. In order to provide health-care workers in risk areas with a working tool to combat Ebola Virus Disease (EVD) or Marburg Virus Disease (MVD) effectively, the WHO Regional Office for Africa (AFRO), the WHO Regional Office for the Eastern Mediterranean (EMRO), WHO Headquarters and their partners have produced this document: Ebola and Marburg virus disease epidemics: Preparedness, alert, control and evaluation.

The main target audience of this document are district-level health-care workers (doctors, nurses, and paramedics), as well as intermediate- and central-level health-care workers responsible for epidemic control, and International Health Regulations (IHR) National Focal Points (NFPs).

The objective of this document is to describe preparedness, prevention, and control measures that have been implemented successfully during previous epidemics. These measures must be implemented during the following four phases:

(1) Pre-epidemic preparedness

(2) Alert (identify, investigate, evaluate risks)

(3) Outbreak response and containment operations

(4) Post-epidemic evaluation.

1.2 Background

The Marburg virus and Ebola virus genera belong to the Filoviridae family (filovirus). The Ebola virus is comprised of five distinct species: Bundibugyo, Côte d'Ivoire, Reston, Sudan, and Zaïre. There is only one Marburg virus species. The Marburg virus and Ebola Zaïre, Sudan, and Bundibugyo subtypes have been associated with large viral haemorrhagic fever (VHF) outbreaks characterized by high person-to-person transmission and a case fatality rate ranging from 25%–90%, whereas Côte d'Ivoire and Reston subspecies have not been associated with VHF outbreaks in humans to date.

Since its discovery in 1976, EVD has mostly occurred in Sub-Saharan Africa (Annex 1). The first cases of EVD were detected in the Democratic Republic of Congo (DRC) and Sudan (1976) and EVD epidemics have since occurred in DRC (1977, 1995, 2007, 2008, 2012), Sudan (1979, 2004), Gabon (1994, 1996, 2001, 2002), Uganda (2000, 2007, 2011, 2012), Republic of the Congo (2001, 2002, 2003, 2005), Guinea (2014), Liberia (2014), Sierra Leone (2014) and Nigeria (2014, following the entry of infected traveller from Liberia) (Figure 1). In 1994, Côte d'Ivoire reported one case of Ebola Côte d'Ivoire in a laboratory