MINISTRY OF HEALTH MALAYSIA:
THE PREPAREDNESS AND RESPONSE TOWARDS 2014-2015 EVD OUTBREAK IN WEST AFRICA

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THE OUTLINE

• Introduction
• Current Status of EVD in Affected Countries
• International Health Regulations (IHR) Emergency Committee Meeting Regarding the 2014 Ebola Outbreak in West Africa & Declaration of PHEIC
• MOH Malaysia: Preparedness & Response
• Role of other Ministries and Agencies
• Take Home Messages
Ebola, which first appeared in outbreaks in Sudan and DR Congo in 1976, is a severe and often fatal disease with no known specific treatment or vaccine. It has since killed more than 1,500 people in parts of Africa.

**SOURCE**
In Africa, particular species of fruit bats are considered possible natural hosts for Ebola virus.

**TRANSMISSION**
Infected bats are thought to transmit the disease to humans, or indirectly through other animals which are hunted for their meat.

**DAMAGE**
Incubation period is from two to 21 days. Death from the disease is often caused by multiple organ failure and tissue death.

**Targets in the body**
- Hepatocytes, functional cells of the liver
- Endothelial cells, which form the linings of the blood vessels
- Phagocytes, blood cells that absorb foreign particles

**Symptoms**
- Fever
- Sore throat
- Severe headache
- Muscle pain
- Intense weakness
- Vomiting
- Diarrhea
- Impaired liver and kidney function
- Internal and external bleeding

Note: List of animals is not exhaustive.

Sources: Centers for Disease Control and Prevention; World Health Organisation

G.Cabrera, 28/03/2014
You can only get Ebola from touching bodily fluids of a person who is sick with or has died from Ebola or from exposure to contaminated objects, such as needles.
The continuing Ebola outbreak in West Africa has infected eight times the number of people than all previous outbreaks combined.
WHAT RESEARCHERS HAVE LEARNED

• Ebola is of the forest
• Ebola moves from animals to humans
• Ebola thrives on delayed diagnosis
• Ebola travels by road
• Ebola strikes unprepared hospitals
• Ebola benefits from super-spreader events
• Ebola thrives on fear and distrust
• Outbreaks are stopped by isolation, careful nursing and contact tracing
• Outbreaks are stopped with resources
The village of Meliandou, Guinea, where a 1 year old boy named Emile Ouamouno came down with symptoms consistent with Ebola and died in late December 2013. Emile is considered Patient Zero in the current outbreak across Guinea, Sierra Leone and Liberia.
Current Status of EVD in Affected Countries

- A total of 27,898 confirmed, probable and suspected cases of Ebola virus disease (EVD) have been reported in ten currently and previously affected countries up to the end of 2 August 2015. There have been 11,296 reported deaths.

Source: WHO Disease Outbreak News (DONs)
EVD 2014-2015: Countries With Widespread & Intense Transmission

<table>
<thead>
<tr>
<th>COUNTRIES</th>
<th>CUMULATIVE CASES</th>
<th>CUMULATIVE DEATHS</th>
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<tbody>
<tr>
<td>Guinea</td>
<td>3,784</td>
<td>2,522</td>
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<tr>
<td>Liberia</td>
<td>10,666 (Before 9 May 2015)</td>
<td>4,806 (Before 9 May 2015)</td>
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<td>6</td>
<td>2</td>
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<tr>
<td>Sierra Leone</td>
<td>13,406</td>
<td>3,951</td>
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<tr>
<td>TOTAL</td>
<td>27,862</td>
<td>11,281</td>
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• The outbreaks of EVD in Liberia was previously declared over on 9 May 2015. However, a new case was confirmed in Liberia on 29 June 2015.

• Since the start of the outbreak, a total of 880 confirmed HCW infections have been reported in Guinea, Liberia and Sierra Leone; there have been 510 reported deaths.
A doctor, who was recently in Africa treating Ebola patients, tested positive on Oct. 23.

The two nurses who contracted Ebola at a Dallas hospital were transferred to specialized units in Atlanta and Bethesda, Md., and have recovered.

A Spanish nurse contracted Ebola while treating a missionary who died in a Madrid Hospital.

**Source:** www.nytimes.com

(As of 5 January 2015)
1st Meeting Of The IHR Emergency Committee: The 2014 Ebola Outbreak In West Africa

• It was the unanimous view of the Committee that the conditions for a Public Health Emergency of International Concern (PHEIC) have been met

• The DG-WHO endorsed the Committee’s advice and issued them as Temporary Recommendations under IHR (2005) to reduce the international spread of Ebola, effective 8 August 2014

• The advice provided by the Committee to the DG-WHO for her consideration:
  – States With Ebola Transmission
    • Declaration of national emergency, implement exit screening, no international travel of Ebola contacts or cases (unless the travel is part of an appropriate medical evacuation), postponing mass gathering etc.
  – States With A Potential Or Confirmed Ebola Case And Unaffected States With Land Borders With Affected States
    • Establishment of surveillance system for clusters of unexplained fever or deaths due to febrile illness etc.
  – All States
    • No general ban on international travel and trade, enhancement of preparedness and response, providing accurate information of EVD to general public etc.
What is PHEIC?

PHEIC (Public Health Emergency of International Concern) means an extraordinary event which is determined, as provided in the International Health Regulations (IHR) 2005:

– to constitute a public health risk to other States through the international spread of disease; AND

– to potentially require a coordinated international response
The Director-General accepted the Committee’s assessment, and declared that the 2014-2015 Ebola Outbreak in West Africa continued to constitute a PHEIC

RECOMMENDATIONS FOR ALL STATES

The DG of WHO reemphasized that there is no public health justification for refusing entry or quarantining travellers simply because they had been in, or are a citizen of, one of the affected countries. Any measures applied must be based on appropriate public health evidence or information about potential risks posed by the individual traveller.
World on the verge of an effective Ebola vaccine (WHO Press Release on 31 July 2015)

• Results from an interim analysis of the Guinea Phase III efficacy vaccine trial show that rVSV-ZEBOV (Merck, Sharp & Dohme) is highly effective against Ebola.

• The trial uses a ‘ring vaccination’ strategy.

• The results suggest that the efficacy of the rVSV vaccine is 100%. The results are called ‘interim’ because the trial continues in Guinea.
MOH MALAYSIA: THE HEALTH ADVISORY

1) Malaysians are recommended to avoid non-essential travel to Guinea, Liberia and Sierra Leone at this time.

2) Travellers going to affected countries:
   • Should refrain from visiting households or healthcare settings that have been affected by an Ebola outbreak.
   • Should not handle items that may have come in contact with an infected person's blood or body fluid.
   • Should avoid contact with dead animals.
   • Should practice good personal hygiene and wash their hands frequently and thoroughly.
   • Should seek prompt medical attention if having EVD symptoms (e.g. fever, headache, joint and muscle aches, sore throat, diarrhoea, vomiting, stomach pain, rash or unexplained bleeding).
   • Should limit contact with others as much as possible – once symptomatic.
# Ebola Virus Disease (EVD): Surveillance System

## CASE DEFINITIONS

### PERSON UNDER INVESTIGATION (PUI):
A person who has both consistent symptoms and risk factors as follows:

- **i.** Elevated body temperature or subjective fever or symptoms, including severe headache, fatigue, muscle pain, vomiting, diarrhoea, abdominal pain or unexplained haemorrhage; **AND**

- **ii.** An epidemiological risk factor (refer to DG’s letter dated 19 January 2015) within the past 21 days before the onset of symptoms, which includes:
  - High risk exposure
  - Some risk exposure
  - Low (but not zero) risk exposure
  - No identifiable risk exposure

### CONFIRMED CASE:
A case with laboratory confirmed diagnostic evidence of Ebola virus infection.
Ebola is one of the notifiable diseases listed within the Prevention & Control of Infectious Disease (PCID) Act 1988 (Act 342).

- So far, no confirmed cases of Ebola infection have been reported in Malaysia.

As of 04 August 2015, thirteen (13) PUI-EVD cases have been notified to the National CPRC, MOH.

- All cases were tested negative for EVD.
MOH: THE PREPAREDNESS & RESPONSE

• Crisis Preparedness and Response Centre, Ministry of Health (CPRC): acting as a command centre for coordination of all public health activities related to EVD preparedness and response nationwide

• Provide reference and guidance for healthcare workers, including personnel at the international points of entry via the circulation of ‘Guidelines on EVD Management in Malaysia’ (29 September 2014), which was later updated on 19 January 2015
  – Emphasize on the importance of infection prevention & control practices, which need to be instituted consistently and optimally
  – Early detection of PUI-EVD (including contact tracing, once required)
  – Prompt notification via the established channel
  – Immediate referral of PUI-EVD to the designated hospitals
  – Routine laboratory testing for diagnostic evaluation and patient care
  – Forensic management of EVD cases
  – Health screening at international points of entry
  – Management of clinical waste, linen, environment etc. with regards to EVD cases
MOH: THE PREPAREDNESS & RESPONSE

• Twenty one dedicated hospitals with isolation facilities to manage PUI EVD case and three designated hospitals to manage lab-confirmed EVD case (Sungai Buloh Hospital, Queen Elizabeth Hospital and Sarawak General General Hospital)

• Quarantine facilities – Sungai Buloh Quarantine facility (mass quarantine) and imposing home observation & surveillance order

• Confirmatory test for EVD by the designated laboratory i.e. the Institute of Medical Research (IMR), the National Public Health Laboratory Sungai Buloh, Selangor and the Public Health Laboratory Kota Kinabalu, Sabah

• If an EVD case is detected – immediate deployment of designated Rapid Response Team (RRT) and Rapid Assessment Team (RAT) at various levels of MOH, particularly at District Health Offices to undertake the field activities

• Ensuring the availability of personal protective equipment (PPE) stockpile

• MOH Malaysia is working with partners at the international points of entry (e.g. Immigration Department of Malaysia, the airport / seaport / causeway authorities etc.) to identify travellers coming from the affected countries who show signs of illness
  – Further strengthen on existing Yellow Fever screening
  – Dissemination of Health Alert Card for EVD to respective travellers
HEALTH ALERT CARD
FOR TRAVELLERS AND CREWS ARRIVING FROM
COUNTRIES AFFECTED BY EBOLA VIRUS DISEASE (EVD)

Keep this card for the next 21 days upon returning to Malaysia. Monitor your health status and seek medical attention immediately from the nearest health facility for further assessment if you have symptoms as below:

- Fever (>38.6°C);
- Intense weakness;
- Lethargy;
- Muscle pain;
- Headache;
- Sore Throat;
- Vomiting;
- Diarrhoea;
- Rash;
- Unexplained bleeding

You are advised to practice the following:
- Maintain good personal hygiene such as frequent hand washing with soap and water or use hand sanitizer regularly;
- Limit contact with healthy individuals around you, once you are symptomatic.

Attention To The Doctor Who Is Attending This Patient:

The person who is presenting this card to you had recently arrived from countries affected by EVD for example Guinea, Sierra Leone and Liberia. If the person presents with symptoms as above, please call the following number immediately for advice on referral. Attending doctors are advised to maintain optimum infection prevention and control measures at all times.

- 03-8881 0300:
  - Monday to Friday (8:00 am - 5:00 pm);
- 013-6699 700:
  - Monday to Friday (before 8:00 am / after 5:00 pm);
  - Saturday and Sunday (including public holidays).
MOH: THE PREPAREDNESS & RESPONSE

• Continuous **dissemination of information** thus increasing public awareness about EVD (via mass media, MOH’s website, social media)

• MOH Malaysia is **working in close collaboration with other relevant agencies** such as Ministry of Foreign Affairs, Immigration Department of Malaysia, Ministry of Education, Ministry of Transport etc.
  - Organization of inter-sectoral meetings
    • 13 August 2014: Chaired by the Director of Disease Control Division, MOH
    • 8 October 2014: Chaired by the Honourable Health Minister
  - Regular sharing of relevant inter-agency data to further strengthen the preparedness and response activities
  - Invitation for MOH personnel to give talk on EVD awareness

• Organization of **simulation exercises** for EVD
  - More than 30 simulation exercises were conducted at various levels of MOH
  - Participated in simulation exercise of EVD organized by Western Pacific Regional Office of WHO on 8 October 2014
EVD: DISSEMINATION OF INFORMATION

http://www.moh.gov.my
(Under ‘Health Info’)
**INTRODUCTION**

Ebola virus disease (EVD) is a severe, often fatal illness, with high death rate. The illness affects humans and animals such as fruit bats and monkeys. Ebola first appeared in 1976 in two simultaneous outbreaks, in the Democratic Republic of Congo and Sudan, respectively. Since March 2014, the World Health Organization was informed regarding EVD outbreaks involving West African countries (i.e. Guinea, Sierra Leone and Liberia).

**MODE OF TRANSMISSION**

You may be exposed to the ebola virus through direct contact with:

- Bodily fluids of a person who is sick with or has died from EVD (e.g. blood, vomit, pee, poop and other fluids).
- Objects contaminated with the virus (e.g. needles, medical equipment etc.).
- Infected animals (by contact with blood or fluids or infected meats).

**SYMPTOMS**

Symptoms can appear from 2 to 21 days after exposure:

- Fever
- Headache
- Joint and muscle aches
- Intense weakness
- Vomiting
- Rashes
- Diarrhoea
- Unexplained bleeding

**HEALTH ADVISORY**

You are advised to practice the following:

- Maintain good personal hygiene such as frequent hand washing with soap and water or use hand sanitizer regularly.
- Limit contact with healthy individuals around you, once you are symptomatic.

**REMINDER!**

Monitor your health status within 21 days upon returning from the affected countries and seek medical attention **IMMEDIATELY** from the nearest health facility for further assessment if you have the symptoms as mentioned.
9 October 2014: Briefing On National EVD Guidelines To The Identified Stakeholders Nationwide
8 November 2014: National Training of Rapid Response Team (RRT) & Rapid Assessment Team (RAT) For EVD
MALAYSIA & EVD: THE PREPAREDNESS & RESPONSE

MOH Malaysia is working in close collaboration with other relevant agencies such as Ministry of Foreign Affairs, Immigration Department of Malaysia, Ministry of Education, Ministry of Transport, Ministry of Tourism and Culture, Ministry of Defence, etc.

• **General Roles**
  – Dissemination of information regarding EVD to personnel and clients going to / coming from the affected countries thus increasing their awareness and to prevent the spread of disease into Malaysia.

• **Specific Roles**
  – **Ministry of Foreign Affairs:** Issuance of travel advisory i.e. Malaysians are recommended to avoid non-essential travel to Guinea, Liberia, Sierra Leone and Nigeria at this time
  – **Immigration Department of Malaysia:** Referral of travelers from affected countries detected at the international points of entry to Health Quarantine Centre / Health Team for further assessment
MALAYSIA & EVD: THE PREPAREDNESS & RESPONSE

• Specific Roles
  – **Ministry of Education**: Close monitoring of health status of students coming from the affected countries, especially among the new intake and students with recent history of travelling back to their home country
  – **Ministry of Tourism and Culture**: Dissemination of information regarding EVD to Tour and Travel Agents Associations dealing with travellers coming from the affected countries and about self-reporting of illness by travellers
  – **Ministry of Transport**: Dissemination of information regarding EVD to transport operators (e.g. flight, ship, bus etc.) and ground staff
  – **Ministry of Defence**: Close monitoring of health status of personnel stationed in the affected countries and upon returning home after completion of their service in the affected countries
  – **Department of Veterinary Services**: Surveillance for potential Ebola infection through importation of live animals or animal products from Africa
  – **PERHILITAN**: Surveillance of potential Ebola infection in Malaysia’s wildlife
CONCLUSIONS

EBOLA VIRUS DISEASE:
NO specific treatment and NO vaccine are available

• Be ALERT and be AWARE about EVD.
• Preparedness and response capacities at all level is vital.
• Infection prevention and control measures are critical to prevent the possible spread of EVD in health care facilities or among HCWs.
• Health care workers should be educated, trained and refreshed with skills on infection prevention and control.
• It is important that health care workers apply standard precautions consistently with all patients – regardless of their diagnosis in all work practices, all the time.
• Risk communication is crucial as part of the efforts to increase the public awareness and to overcome public anxiety.
• Malaysians are recommended to avoid non-essential travel to Guinea, Liberia and Sierra Leone at this time.
• The importance of multi-sectoral collaboration and engagement to prevent the spread of EVD into Malaysia.
Ebola: reducing the risk of transmission

As long as the epidemic of Ebola virus disease is continuing and expanding in West Africa, the risk of importation of contagious cases to European and other countries increases. The risk of further transmission in Europe is extremely low, but cannot be excluded. To minimise this risk, public health efforts in the EU focus on early case detection and isolation.

Exit screening
Passengers departing from affected countries have their temperature checked to prevent a contagious case from boarding a plane.

 travellers coming from affected areas are informed about the disease and advised to seek medical care if they experience symptoms.

From first symptoms to detection
The incubation period ranges from 2 to 21 days. As soon as symptoms appear, people become infectious and can spread the virus to others. People can only get infected if they come in contact with contaminated blood or bodily fluids. Healthcare workers and close contacts are therefore at higher risk of getting infected. Identifying infectious sick persons as soon as possible ensures that the chain of transmission is stopped.

Possibility of infection

Medical evacuation
Patients are safely isolated during medical evacuation and do not pose a risk to others.

Putting medical staff on alert
Frontline medical staff asks patients about recent travel. Patients with a compatible travel history and Ebola-like symptoms are immediately isolated.

Contact tracing
Identifying and following-up those who had contact with an ill person is essential to prevent the spread of the disease.

Healthcare facilities
Infected patients are isolated under vigorous infection control measures.
Thank You