

## **Marburg Virus Disease**

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## **Key facts**

- Marburg virus disease is a highly virulent disease that causes haemorrhagic fever. The virus is in the same family as the virus that causes Ebola virus disease.
- The initial recognition of the disease started from two large outbreaks in Germany and Serbia in 1967, in association with laboratory work using African green monkeys (Cercopithecus aethiops) imported from Uganda.
- Subsequently, outbreaks and sporadic cases have been reported in Angola, Democratic Republic of the Congo, Kenya, South Africa and Uganda.
- The average case fatality rate is around 50% and this has varied from 24% to 88% in past outbreaks depending on virus strain and case management.
- Rousettus aegyptiacus, which are fruit bats of the Pteropodidae family, are considered to be natural hosts of Marburg virus.

#### Transmission: Direct and indirect contact

- Fruit bats and African Green monkeys have been identified as key sources of zoonotic transmission (establishing initial zoonotic transmission before sustained human-to-human spread)
- Prolonged contact with fruit bat colonies
- Contact with the blood, faeces, vomit, spit, sweat, tears, breastmilk or semen from a person sick with Marburg
  - Contact can be with objects that have been contaminated with the body fluids from a person who is sick with Marburg (for example, bedding, clothes or needles)
- When handling the body of someone who has died from Marburg
- Coming into contact with semen (for example, through sex) from someone who has recovered from Marburg (safe sex, with condoms, should be practiced for 12 months after recovery)
- Mother-to-child during pregnancy, delivery and breastfeeding is possible



#### Most vulnerable to severe consequences

• Every person in the community is vulnerable to Marburg (\*\* it is a deadly disease that can kill many – about half of all people who get infected can die \*\*)

#### Most vulnerable to contracting the disease

- Family and relatives of people who are sick (or who have died) from Marburg
- Health workers, volunteers and people who handle dead bodies

#### **Symptoms**

- Sudden and high fever
- Severe headache
- Feeling unwell
- Muscle aches and pains (sometimes)
- Abdominal cramps (sometimes)
- Nausea and vomiting (sometimes)
- Watery diarrhoea (sometimes)
- Rash (sometimes)
- Bruising under the skin and bleeding from the nose, vagina, gums (sometimes)
- Blood in vomit and/or faeces (sometimes)
- Confusion, irritability, aggression (sometimes)

Marburg and Ebola viruses which are both members of the same virus family, have similar clinical signs, and have the capacity to cause outbreaks with high fatality rates.

# What can you do to prevent and control an epidemic?

#### Monitoring the community and identifying sick people

• Identify and immediately isolate sick people



#### Treatment and management

- Immediately refer suspected cases to treatment centres
- Provide safe transport for suspected cases
- Support contact tracing and follow-up of contacts
- Provide psychosocial support to the sick person, their families and communities
- Support safe and dignified funeral and burial practices

#### Sanitation and waste management

- Dispose safely of waste that might be contaminated (by burning or burying)
- Disinfect homes and personal belongings of people who are sick or have died
- Promote disinfection of reusable supplies
- Solid waste management
  - Encourage the community to clear away rubbish and garbage

#### Personal protection and hygiene

- Promote handwashing with soap, chlorine solution or hand sanitizer
- Practise and promote social distancing
- Use personal protective equipment (gloves, masks, clothing) when in contact with potential cases
- Promote wearing gloves, masks and other appropriate protective clothing when working in mines or caves inhabited by fruit bat colonies
- Avoid touching sick or dead fruit bats, their faeces and other waste products

#### Food hygiene and safety

Promote cooking bushmeat or animal products (blood and meat) thoroughly

#### Social mobilization and behaviour change

- Find out the specific advice being given by health and other relevant authorities
  - Promote the use of condoms for at least 12 months after a diagnosis of Marburg or until their semen tests negative twice for the virus
  - Promote the safe disposal (burning or burying) of contaminated materials
  - Promote social distancing
- Model following this advice and inform community members of current health practice advice
- Offer support and encouragement to follow the advice
  - Try to gain understanding about if and why health practice advice is not being followed



- With the guidance of your supervisor and health authorities, work with communities to overcome barriers to following health advice and recommended practices
- Involve the community in managing rumours and misinformation
- Ensure safe and dignified burials (discuss with your manager to follow national protocols and guidance)

## Mapping and community assessment

- Make a map of the community.
- Mark the following information on the map:
  - How many people have fallen sick with Marburg? Where?
  - How many people have died? Where? When?
  - Where are the local health facilities and services? (include traditional healers)
  - Where do people obtain their drinking water?
- Record the following information on the back of the map:
  - When did people start to fall sick with Marburg?
  - How many people live in the affected community?
    - How many are children under five years?
    - How many pregnant women live in the affected areas?
  - What are the community's habits, practices and beliefs about caring for sick people? Consider any differences in roles and responsibilities between women and men.
  - What are the community's burial traditions, funeral procedures and practices? Who traditionally prepares bodies for burials? Consider any differences in roles and responsibilities between women and men.
  - Do people in the community know about Marburg?
    - Do people know the main signs of Marburg?
    - Do they know what to do if someone becomes sick (for example phone number to call, actions to take)?
    - Do people know how to protect themselves from Marburg?
  - Is a social mobilization or health promotion programme in place?
  - Are people in the community socially distancing? Why? Why not?
  - Which sources do people use/trust the most for information?
    - Are there rumours or misinformation about Marburg? What are the rumours?
  - Are health workers, volunteers or people who have survived Marburg stigmatized, left out, threatened or harassed?
    - What are the main effects on them and their lives?



## **Other resources**

WHO - World Health Organization; Marburg virus disease; 2021

