

## **Ebola Virus Disease**

### Why in News?

Recently, an **outbreak of Ebola Virus Disease (EVD)** has been declared in **Uganda** following the confirmation of a **relatively rare Sudan strain case.** 

## What is Ebola Virus Disease (EVD)?

#### About:

- EVD, formerly known as **Ebola haemorrhagic fever** is a deadly disease with occasional outbreaks that occur mostly on the African continent.
- Ebola virus was first discovered in 1976 near the Ebola River in what is now the Democratic Republic of Congo.
- It most commonly affects people and nonhuman primates (such as monkeys, gorillas, and chimpanzees).
- It is caused by an infection with a group of viruses within the genus Ebolavirus:
  - Ebola virus (species Zaire ebolavirus)
  - Sudan virus (species Sudan ebolavirus)
  - Taï Forest virus (species Taï Forest ebolavirus, formerly Côte d'Ivoire ebolavirus)
  - Bundibugyo virus (species Bundibugyo ebolavirus)
  - Reston virus (species Reston ebolavirus)
  - Bombali virus (species *Bombali ebolavirus*)
- Host: Fruit bats of the Pteropodidae family are natural Ebola virus hosts.

#### Transmission:

- Animal to Human Transmission occurs through close contact with the blood, secretions, organs or other bodily fluids of infected animals such as fruit bats, chimpanzees, gorillas, monkeys, forest antelope or porcupines found ill or dead or in the rainforest.
- Human-to-Human Transmission occurs via direct contact (through broken skin or mucous membranes) with Blood or body fluids of a person who is sick with or has died from Ebola.

#### Signs and Symptoms:

Symptoms may appear anywhere from 2 to 21 days after contact with the virus, with an average of 8 to 10 days which include Fever, Fatigue, Muscle pain, Body weakness, Headache, Sore throat, Vomiting, Diarrhoea, Symptoms of impaired kidney and liver function, in some cases, both internal and external bleeding.

#### Diagnosis:

- It can be difficult to clinically distinguish Ebola from other infectious diseases such
  as malaria, typhoid fever, and meningitis but confirmation that symptoms are caused by
  Ebola virus infection are made using the following diagnostic methods:
  - **ELISA** (antibody-capture enzyme-linked immunosorbent assay)
  - Reverse transcriptase polymerase chain reaction (RT-PCR) assay, etc.

#### Vaccines:

- The **Ervebo** (**rVSV-ZEBOV**) **vaccine** has been highly effective in containing the disease.
  - However, this vaccine has only been approved to protect against the Zaire strain of the virus.

## **UPSC Civil Services Examination, Previous Year Question (PYQ)**

# Q. Among the following, which were frequently mentioned in the news for the outbreak of Ebola virus recently? (2015)

- (a) Syria and Jordan
- (b) Guinea, Sierra Leone and Liberia
- (c) Philippines and Papua New Guinea
- (d) Jamaica, Haiti and Surinam

Ans: (b)

#### Exp:

Guinea, Sierra Leone and Liberia were in the news for the outbreak of Ebola virus. The most widespread outbreak of Ebola virus disease began in 2013 and continued until 2016, causing major loss of life and socio-economic disruption in the West African region, mainly in the countries of Guinea, Liberia, and Sierra Leone.

The Vision

- The first cases were recorded in Guinea in December 2013. Later, the disease spread to neighbouring Liberia and Sierra Leone.
- Therefore, option B is the correct answer.

**Source: DTE** 

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