**CYCLE OF RIFT VALLEY FEVER VIRUS**

**LEAST FREQUENT MODE OF TRANSMISSION**
- **Mosquito Bite**
  - Amplifying vector
  - Rift Valley Fever Virus is a Phlebovirus

**MOST FREQUENT MODE OF TRANSMISSION**
- **Contact** with blood and other bodily fluids of infected animals
  - Elevated risk during:
    - Slaughter
    - Animal birth
    - Veterinary interventions
    - Foetus and/or carcass removal

**VERTICAL TRANSMISSION**
- Egg hatching during heavy precipitation

**RESERVOIR HYPOTHESIS: WILD HERBIVORES**

**LIVESTOCK**

**Amplifying host**

**MOSQUITO BITE**
- Mosquito-animal-mosquito amplification cycle

**NO INTER-HUMAN TRANSMISSION**

**MSQUTOS (Multiple species)**

**Amplifying host**
RIFT VALLEY FEVER (RVF) DISEASE is a zoonosis caused by a phlebovirus that primarily affects animals but can also cause human infections. SYMPTOMS IN BOTH ANIMALS AND HUMANS can be severe. In areas at risk, livestock vaccination is an effective means of combating this illness.

UNDERSTANDING THE VIRUS CYCLE OF RIFT VALLEY FEVER

CONCERNED SPECIES

<table>
<thead>
<tr>
<th>High susceptibility</th>
<th>Susceptible</th>
<th>Moderate susceptibility</th>
<th>Low susceptibility (Inapparent infection)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lambs, young goats, puppies, kittens, mice</td>
<td>Calves, sheep</td>
<td>Bovines, goats, buffalos, humans</td>
<td>Camels, horses, pigs, dogs, cats, rabbits</td>
</tr>
</tbody>
</table>

RESERVOIR
Hypothesis of wild herbivores.

VECTORS
Multiple species of mosquito, particularly the Aedes, Culex and Anopheles types can carry the virus.

MODES OF TRANSMISSION
- Animal to animal transmission occurs through:
  - Bites from infected mosquitoes.
  - Direct animal-animal contact with bodily fluids, particularly contaminated blood (during abortions, licking, or simple contact).
- Human transmission occurs through:
  - Bites from infected mosquitoes.
  - Direct contact with the blood or organs of infected animals.
  - Consumption of raw or undercooked meat and/or unpasteurized dairy products.
  - There is no evidence of human to human transmission.

ENVIRONMENTAL FACTORS
Close correlation between RVF and periods favouring mosquito population growth like heavy rainfall and unseasonably warm temperatures related to the El Niño phenomenon.

CLINICAL SIGNS

WARNING SIGNS in animals
- **High mortality** without other clear symptoms among very young animals.
- **Large-scale abortion**, which can reach up to 100%.
- **High fever** (>42°C) accompanied by other signs: anorexia, jaundice, foul and watery diarrhoea, bloody and mucus-filled nasal discharge in animals over two weeks old.

PEOPLE AT RISK
People involved in raising animals, including agricultural workers, slaughterhouse staff, and veterinarians are often among the most at risk.

PRINCIPAL SYMPTOMS in humans
- **Incubation period**: 2 to 6 days.
- **Flu-like symptoms** with sudden on-set fever, headaches, muscle pain, and joint pain.
- In certain severe forms of the disease (<5% of cases), symptoms can also include bloody vomiting, a decrease in or loss of vision, and neurological complications.
- **Duration of symptoms**: 4 to 7 days.

WHAT SHOULD YOU DO WHEN YOU SUSPECT A CASE IN LIVESTOCK?

1. **ENSURE GOOD COORDINATION** between Wildlife Services, Veterinary Services and Public Health Services.
2. **ADHERE TO GOOD PRACTICES** for personal protection (gloves, protective clothing), especially when visiting slaughterhouses and delivering veterinary services.
3. **COLLECT SAMPLES**, if possible, and send them to the national veterinary laboratory or a reference laboratory.
4. **bury the carcass** sufficiently deep between two layers of quicklime or burn it as described in Article 4.12.6 of WOAH Terrestrial Code.
5. **NOTIFY WOAH** by e-mail or fax or through WAHIS of every confirmed case of a WOAH-listed disease (like RVF) as per Article 1.1.3 of WOAH Terrestrial Code.

WHAT MESSAGES SHOULD YOUR SHARE WITH AT-RISK COMMUNITIES?

1. **WEAR** light coloured, long clothing.
2. **APPLY INSECT REPELLENT**, if available, on all exposed skin, as well as on livestock.
3. **USE MOSQUITO NETS** treated with insecticide.
4. **PROTECT YOUR HANDS AND ANY EXPOSED SKIN** when handling sick or dead livestock.
5. **QUICKLY ALERT VETERINARY SERVICES** about unexplained animal abortions and/or deaths.
6. **AVOID** stagnant puddles of water in and around homes.