



**DOW UNIVERSITY OF HEALTH SCIENCES**  
**DOW UNIVERSITY HOSPITAL-OJHA CAMPUS**  
**INFECTION PREVENTION & CONTROL DEPARTMENT**

**Congo-Crimean Hemorrhagic Fever (CCHF) - An advisory:**

Dear Colleagues,

In the wake of a CCHF outbreak in Baluchistan that has affected multiple HCWs, the department of Infectious Diseases in collaboration with IC coordinator, is issuing an advisory for the benefit of the hospital employees. As awareness plays a vital role in preventing the spread of infectious diseases, this post aims to provide essential information about CCHF to help you stay informed and take necessary precautions.

**About the Virus:**

Crimean-Congo Hemorrhagic Fever (CCHF) is a virus that can cause a febrile illness which can lead to severe illness and, in some cases, death. It is transmitted to humans through ticks and direct contact with the blood or bodily fluids of infected animals or people.

**Key Facts about CCHF:**

Transmission: CCHF is primarily transmitted through ticks, particularly the *Hyalomma* genus, found on domestic and wild animals. It can also spread through contact with infected blood, tissues, or bodily fluids of humans or animals. The incubation period is 3-14 days

**Risk of Exposure:**

- Animal herders, livestock workers, and slaughterhouse workers are at risk of CCHF.
- Transmission to humans occurs through contact with infected ticks or animal's blood.
- Human-to-human transmission can occur resulting through unprotected contact with the blood, secretions, vomitus, stool, urine, sweat, saliva, semen, breast milk organs or other body fluids of infected persons.
- Individuals and international travelers with contact to livestock in endemic regions may also be exposed.
- Improper sterilization of medical equipment,
- Reuse of injection needles or by needle ( was used on suspected / confirm CCHF) stick injuries
- Contamination of medical supplies.
- Improper handling of samples in labs

**Geographical Distribution:**

CCHF occurs in many countries across Africa, Asia, Europe, and the Middle East. Regions with a high risk of CCHF include parts of Africa (particularly sub-Saharan Africa) and Central Asia. Certain geographic areas in Pakistan are natural habitats of the vector.

**Symptoms:**

The disease has three phases: Pre-haemorrhagic (1-7 days), Haemorrhagic (2-3 days) and Convalescent phase (upto 1 year).

*Prepared by Babar Ahmed (ICC) and Dr. Beenish Syed (ID)*  
*Reviewed by Dr. Mehreen Fatima (ID), Dr. Tehreem Ansari (ID)*



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The onset of CCHF is usually abrupt and includes fever, muscle aches, dizziness, severe headache, nausea, vomiting, and diarrhea. In severe cases, it can progress to hemorrhage, nasal bleed, oral bleed, gum bleed, GI bleed, organ failure, and death.

#### **Case Definition:**

- **Suspected case:** Any person with sudden onset of fever over 38.5 C for > 3 days and <10 with hemorrhagic symptoms, animal contact history from CCHF endemic areas
- **Probable case:** Suspected case with h/o 10 days of febrile illness or less with epidemiological link *and* any two of the following: thrombocytopenia <50,000, petechial and purpural rash, epistaxis, hematemesis, hemoptysis, blood in urine and/or stool, ecchymosis and gum bleeding.
- **Confirmed case:** Suspected/probable case with lab diagnosis of CCHF (PCR and/or serology)

#### **Diagnosis and Treatment:**

Early diagnosis is critical for effective treatment. CCHF virus infection can be diagnosed by several different laboratory tests:

- Enzyme-linked immunosorbent assay (ELISA)
- Reverse transcriptase polymerase chain reaction (RT-PCR) assay
- Supportive tests include: Elevated LFTs, thrombocytopenia, coagulopathy (High PTT)

If you suspect CCHF, seek medical attention immediately. There is no specific antiviral treatment available, but Ribavirin is indicated in early cases has shown effectiveness along with supportive care. Prophylaxis / Treatment dose of Ribavirin for CCHF: 2gm stat, 4gm p/o x 6 days in 4 divided doses followed by 2gm p/o x 6 days in 4 divided doses.

Mortality is up to 40%.

#### **Post Exposure Management:**

If HCW suspects exposure to suspected or confirmed case, he/she should immediately report the incidence to Infection Control department for risk stratification and initiation of Post-exposure prophylaxis.

#### **Screening at triage:**

All cases should be screened for CCHF. Screening Algorithm and screening questionnaire are attached.

#### **Prevention:**

Preventive measures include avoiding tick bites, wearing protective clothing, using insect repellents, and maintaining good hygiene practices. It is also crucial to avoid contact with blood or bodily fluids of infected individuals or animals.

#### **Tick Bite Prevention:**

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- Use insect repellents containing DEET on exposed skin and clothing.
- Wear long sleeves, pants, and socks in areas with high tick activity.
- Conduct regular tick checks after spending time outdoors and promptly remove any attached ticks. Use of tweezers to remove the ticks is recommended.
- Method of removal of tick:
  - Regularly examine clothes/skin and remove ticks
  - Use fine tipped tweezer and grab the tick as close as possible to the skin.
  - Gently pull straight up until all parts of the ticks are removed.
  - Wash hands with soap and water
  - Apply antiseptic on tick bite
  - Never crush a tick with your fingers and bare hands

#### **Animal Handling:**

- Avoid contact with blood, tissues, or bodily fluids of animals, particularly if they appear sick or have died suddenly.
- Implement proper animal husbandry practices and seek veterinary assistance if animals display unusual symptoms.

#### **Hygiene Practices:**

- Wash hands thoroughly with soap and water after handling animals or potentially contaminated materials.
- Use protective gloves and appropriate gear when in contact with potentially infected individuals or animals.

#### **Healthcare Precautions:**

Healthcare workers should strictly comply with IC practices. The recommended IC practices are attached as separate document.

#### **Stay Informed and Spread Awareness:**

- Share accurate information with family, friends, and the community to raise awareness about CCHF and its prevention.
- Educate yourself about the symptoms, transmission, and preventive measures associated with CCHF through reliable sources such as healthcare organizations and official health websites.
- Remember, by staying informed, adopting preventive measures, and promoting awareness, we can collectively combat the spread of Crimean-Congo Hemorrhagic Fever. Let's prioritize our health and safety!

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