

# Risk management and communication

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# Risk management (1)

## Establishment of an ad hoc committee

- Development of case definition for CCHF notification
- Contact tracing

## Establishment of measures to control the disease's spread

- clear distinction between areas for herds and long distance from touristic areas
- tick control in the area
- numerous contacts with VPH authorities in local level to assess the possibility that any animals had been illegally imported to the country

# Risk management (2)

- ❑ Scheduling of actions for risk assessment for CCHF in Greece:
  - Serosurveys in indigenous populations of all ages in northern Greece
  - Serosurveys in livestock animals throughout the northern border areas of Greece
  - Testing ticks collected from domestic animals from northern Greece

# Case definition for notification of CCHF (July 2008)

## **Suspect case**

A patient with abrupt onset of high fever  $>38.5$  °C, and one of the following symptoms: severe headache, myalgias, nausea, vomiting, and/or diarrhea

AND

History of tick bite within 14 days prior to the onset of symptoms; or

History of contact with tissues, blood, or other biological fluids from a possibly infected animal (e.g., abattoir workers, livestock owners, veterinarians) within 14 days prior to the onset of symptoms; or

Healthcare workers in healthcare facilities, with a history of exposure to a suspect, probable, or laboratory-confirmed CCHF case, within 14 days prior to the onset of symptoms

AND

The contact/exposure took place in the Prefecture of Rhodope

## **Probable case**

A suspected CCHF case fulfilling in addition the following criteria:

Thrombocytopenia

AND

Two of the following hemorrhagic manifestations: hematoma at an injection site, petechiae, purpuric rash, rhinorrhagia, hematemesis, hemoptysis, gastrointestinal hemorrhage, gingival hemorrhage, or any other hemorrhagic manifestation in the absence of any known precipitating factor for hemorrhagic manifestation

## **Confirmed case**

A probable CCHF which in addition is laboratory-confirmed at the WHO Collaborating Centre for Reference and Research on Arboviruses and Hemorrhagic Fever Viruses (Aristotle University of Thessaloniki, Thessaloniki, Greece) with one of the following assays:

- Detection by ELISA or IFA of specific IgM antibodies against CCHF virus or a 4-fold increase in specific IgG antibodies against CCHF virus in two specimens collected in the acute and convalescence phases
- Detection by RT-PCR of CCHF virus genome in a clinical specimen confirmed by sequencing of the PCR product
- CCHF virus isolation

# Contacts' definition (July 2008)

The below mentioned categories should be followed for the onset of symptoms or fever (measurement of temperature every day) for a total of 14 days following the last contact:

- History of contact with tissue, blood, or other biological fluids from the same possibly infected animal
- Members of the patient's family
- Healthcare workers with a history of exposure to a suspect, probable, or laboratory-confirmed CCHF case

# Risk communication

- Written guidelines for hospitals (in Macedonia and Thrace)
- Information to residents and visitors to the Prefecture of Rhodope
- Information of the general population following the mass media involvement which resulted in a “tick-phobia”

# Written guidelines for hospitals

- Guidelines for strict isolation and prompt management of CCHF cases
- Guidelines for proper disinfection of inanimate medical equipment, cleaning procedures, management of waste, handling and transportation of clinical specimens, management of accidental needle stick injuries and contact with potentially contaminated body fluids and management of dead bodies with suspect, probable or confirmed CCHF

# Information to residents and visitors to the Prefecture of Rhodope

- Information regarding prevention of tick bites
- Information about proper removal of attached ticks



# Information of the general population following the mass media involvement

- General information about CCHF
- Information about the associated risk for Greece
- Information about preventive measures for tick bites

# Special considerations (1)

- During the last decade several vector-borne diseases expanded from endemic areas to neighboring non-endemic ones
  - Alterations in natural ecosystems
  - Intensive agriculture
  - Exponential increase of movement of people
  - Global warming

**Countries must be prepared for the worst-case scenario!**

# Special considerations (2)

- Creating a case definition for a newly emerging disease poses challenges
  - i.e. for Greece:
    - Issues on the balance between sensitivity and specificity (more weight was given in sensitivity because of the need to catch cases soon)
    - Issues on the extension of the geographical area under epidemiological surveillance (avoidance of the overuse of resources, given the fact that the country had no circulation of CCHF virus up to then)

# Special considerations (3)

- Numerous different tasks:
  - Flora control
  - Tick control
  - Animal testing
  - Education of farmers
  - Education of clinicians
- Multi-sectoral collaboration (local authorities, entomologists, HPH and VPH officials etc)
- Challenges posed by the cross-cutting issues between all stakeholders

# Reference

Maltezou HC, *et al.* Crimean-Congo hemorrhagic fever in Greece: a public health perspective. *Int J Infect Dis* 2009; doi:10.1016/j.ijid.2008.11.011