

Case study



Epidemiological profile of Crimean Congo Hemorrhagic Fever (CCHF) in Afghanistan: a teaching-case study

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Cite this: The Pan African Medical Journal. 2019;33 (Supp 1):6. **DOI:**10.11604/pamj.supp.2019.33.1.18684

Received: 16/03/2019 - **Accepted:** 08/05/2019 - **Published:** 15/05/2019

Key words: Crimean-Congo hemorrhagic fever, epidemiology, Afghanistan

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This article is published as part of the supplement “**Case Studies for Public Health in the Eastern Mediterranean Region**” sponsored by **The Eastern Mediterranean Public Health Network (EMPHNET)**

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Available online at: <http://www.panafrican-med-journal.com/content/series/33/1/6/full>

Abstract

Crimean-Congo hemorrhagic fever (CCHF) is a vector-borne hemorrhagic disease caused by a primarily zoonotic virus infecting a wide range of domestic and wild animals. The main implicated vectors are Hyalomma spp. ticks. Transmission of the virus to humans occurs through tick bites, crushing of infected ticks, contact with blood, body fluids, and tissue of patients with CCHF during the acute phase of illness; and contact with blood or tissue of viremic livestock. Afghanistan health officials have reported an increase in CCHF cases in 2017. In 2017, a total of 237 cases of CCHF including 41 deaths (CFR: 17.2%) have been reported throughout 27 provinces. Majority of these cases-71 cases (nearly 30%) including 13 associated deaths (CFR: 18.3%), were reported from the capital city, Kabul. This case study simulates an epidemic investigation including laboratory confirmation, active case finding, descriptive epidemiology and implementation of control measures. This case study is designed for the training of basic level field epidemiology trainees or any other health care workers working with CCHF and other public health-related fields. It can be administered in 2-3 hours. Used as adjunct training material, the case study provides the trainees with competencies in assessing the epidemiological profile of CCHF.

How to use this case study

General instructions: this case study should be used as adjunct training material for novice epidemiology trainees to reinforce the concepts taught in prior lectures. The case study is ideally taught by a facilitator in groups of about 20 participants. Participants are to take turns reading the case study, usually a paragraph per student. The facilitator guides the discussion on possible responses to questions. The facilitator may make use of flip charts to illustrate certain points. Additional instructor's notes for facilitation are coupled with each question in the instructor's guide to aid facilitation.

Audience: this case study was developed for novice field epidemiology students. These participants are commonly health care workers working in the county departments of health whose background may be as medical doctors, nurses, environmental health officers or laboratory scientists who work in public health-related fields. Most have a health science or biology background.

Prerequisites: before using this case study, participants should have received lectures on disease surveillance and outbreak investigation.

Materials needed: Flash drive, flip charts, markers, computers with MS Excel

Time required: 2-3 hours

Language: English

Case study material

- Download the case study student guide
- Request the case study facilitator guide

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Competing interest

The authors declare no competing interests.

Acknowledgement

Authors would like to acknowledge The Eastern Mediterranean Public Health Network (EMPHNET) for their technical support.

PAMJ is an Open Access Journal published in partnership with the African Field Epidemiology Network (AFENET)

