

Current major events

Alkhurma Haemorrhagic Fever Virus (AHFV) in the Kingdom of Saudi Arabia

The Ministry of Health of the Kingdom of Saudi Arabia (KSA) recently reported four laboratory confirmed cases of Alkhurma Haemorrhagic Fever Virus (AHFV), detected from Jeddah. The epidemiological investigation revealed that all these four cases were exposed to infected animal (sheep) either during slaughtering or during processing of sheep meat during the last Hajj (2009). All the cases were detected during the post hajj period (November/early December 2009) in Jeddah and were sporadic in nature. The cases were successfully treated in hospitals and recovered fully. The outbreak is currently contained. The potential for further spread of the outbreak seems limited now given the fact that the reported cases were not epidemiologically linked and no more case of AHFV has been reported from the KSA since December 2009.

Editorial note

Alkhurma haemorrhagic fever virus (AHFV) infection is an emerging zoonotic haemorrhagic fever virus first isolated in Jeddah, Saudi Arabia. This virus is a tick-borne flavivirus, which was originally isolated in 1995 from 6 patients with dengue-like hemorrhagic fever from Alkhurma district, south of Jeddah, Saudi Arabia and hence gained the name of AHFV. Virologically, this new flavivirus is closely related to the tick-borne Kyasanur forest disease virus.

Between 1995 to 1999, a total of 24 cases of AHFV were recorded in the Jeddah, KSA while another outbreak caused by AHFV in the KSA between 2001 to 2003 resulted in 37 cases of acute haemorrhagic fever in Makkah of Saudi Arabia out of which 20 cases were laboratory confirmed as AHFV. The geographic distribution of the disease remains unknown. Cases have only been reported from the Makkah and Najran provinces of the KSA, so far, both located on the west coast of the country (please see the map).



Alkhurma Haemorrhagic Fever Virus (AHFV) : Fact Sheet

- **Causative agent:** Alkhurma virus which is a flavivirus related to Kyasanur forest disease virus;
- **Mode of transmission:** AHFV is transmitted from infected sheep or goats by mosquito bites or direct contact with infected animals. The role of ticks and rodents in the transmission and maintenance of the virus remains to be elucidated.
- **Clinical symptoms:** Fever, headache, retro-orbital pain, joint pain, anorexia and vomiting. Some patients develop clinical symptoms of haemorrhagic fever or encephalitis
- **Fatality rate:** May go up to 25% of the total reported cases;

During the last outbreak in 2003, most of the patients presented with acute febrile flu-like illness with hepatitis, haemorrhagic manifestations and encephalitis.

Currently little information exists on the evolution of AHFV and its seasonal patterns. The role of arthropods such as ticks and mosquitoes, and animals such as sheep, goat, and rodents in the transmission and maintenance of the virus remains to be elucidated. Sero-epidemiological studies are needed in various population groups to determine the extent of AHFV infection and its geographic distribution. The critical issues to resolve are the origin of the virus and how it is dispersed so that appropriate disease control strategies can be devised. Enhanced surveillance between animal and human health sector for viral haemorrhagic fever, prompt clinical diagnosis and evidence based preventive strategies would be the key to control the disease in the shorter run.

Update on outbreaks

in the Eastern Mediterranean Region

Pandemic (H1N1) 2009 in all the 22 countries in EMR. **Avian Influenza A (H5N1)** in Egypt

Current public health events of international concern

[cumulative N° of cases (deaths), CFR %]

Avian influenza

Egypt	[94 (27), 28.7%]
Indonesia	[161 (134), 83.2%]
China	[38 (25), 65.8%]
Vietnam	[112(57), 50.9%]
Cambodia	[9 (7), 77.8%]
Global total	471 (282), 59.8%

Kala Azar

S. Sudan	[403 (24), 6%]
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Yellow Fever

Cote d' Ivoire	[10 (6), 60%]
Guinea	[1 (0), 0%]

Pandemic (H1N1) 2009

AFRO	No of deaths: 133
AMRO	No of deaths: At least 7166
EMRO	No of deaths: 1002
EURO	No of deaths: At least 3429
SEARO	No of deaths: 1426
WPRO	No of deaths: 1555
GLOBAL Total	No of deaths: at least 14,711

CFR=Case-Fatality Rate