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Current major event

Brucellosis and Q fever outbreaks in Afghanistan

The Ministry of Public Health has reported a concurrent outbreaks of brucellosis and Q fever in two districts of Bamyan province of Afghanistan. A total of 147 suspected cases were identified following an investigation by the provincial DEWS team on 29/May/ to 02/June/2011. There was no death. 28 samples sent to the Central Public Health Laboratory tested positive for *brucella melitensis species* by serology . Further tests done at the FAO central veterinary research laboratory (CVDRL) confirmed *B. melitensis* in the 28 samples but 27 of the samples were also positive for *Coxiella Brunetti* by serology and PCR. Samples have been sent to Germany for further testing and confirmation. The MOPH, MOA, WHO and FAO are jointly responding to contain both outbreaks in humans and the animal.

Editorial note

Afghanistan has confirmed infections with both brucellosis and Q fever in 27 individuals from Seyadara area of Yakowlang district and Pushte Akhzarat and Meiankawak areas of Panjab district of Bamyan province. This seems to be the first time, Afghanistan has detected Q-Fever among human population. However, Q fever has been reported in US and UK soldiers returning from Afghanistan. Both diseases are known to be endemic in animals in Afghanistan. Brucellosis was detected as early as 2003 and in 2007 there was an outbreak of brucellosis in the same region.

Brucellosis is a widespread zoonosis mainly transmitted from cattle, sheep, goats, pigs and camels through direct contact with blood, placenta, fetuses or uterine secretions, or through consumption of contaminated raw animal products (especially unpasteurized milk and soft cheese). The disease is caused by the bacteria Brucella species (*B, abortus, B. melitensis, and B. suis)*, but most human infrctions are caused by *B. melitensis.*

Afghanistan Map Highlighting Bamyan Province: Brucellosis and Q fever outbreaks reported from two districts

KEY POINTS ON BRUCELLOSIS DISEASE IN HUMANS

- Human brucellosis usually presents as an acute febrile illness
- Most cases are caused by B. melitensis
- All age groups are affected
- Complications may affect any organ system
- The disease may persist as relapse, chronic localized infection or delayed convalescence.

Q fever is also, a worldwide disease with acute and chronic stages caused by the bacteria *Coxiella burnetii*. Cattle, sheep, and goats are the primary reservoirs although a variety of species may be infected. The organism is extremely hardy and resistant to heat, drying, and many common disinfectants which enable the it to survive for long periods in the environment. Infection of humans usually occurs by inhalation of these organisms from air that contains dust contaminated by dried placental material, birth fluids, and excreta of infected animals.

Although both brucellosis and Q fever can be found worldwide, they are more common in countries that do not have good standardized and effective public health and domestic animal health programs. Afghanistan is one such country, where humans and animals sometimes live under the same roof and the weather is very dry with fast winds blowing dust every where. The prevention and control measures in this situation should target both animal and human sectors focusing on case management, community mobilization and health education messages aimed at behavior change.

Update on outbreaks

in the Eastern Mediterranean Region

Measles in Afghanistan; **A(H5N1)** in Egypt; **Cholera** in Afghanistan and Pakistan, **Brucellosis & Q fever** in Afghanistan**. Wild polio type 3** in Pakistan

Current public health events of international concern
[cumulative N° of cases (deaths), **CFR** %]

Avian influenza	
Egypt	[150 (52), **34.7%**]
Indonesia	[178 (146), **82.0 %**]
Viet Nam	[119(59), **49.6%**
China	[40(26), **65%**]
Global total	[562 (329), **58.4%**]
HUS	
Germany	[847(31) , **3.7%**]
Europe	[47(1), **2.1%**]
USA	[4(1), **25.0%**]
Brucellosis	
Afghanistan	[147(0), **0%**)]
AWD (Cholera)	
Afghanistan	[1093(11), **1 %**]#
Pakistan	[4506(35), **0.8%**]

*CFR=Case-Fatality Rate; * Number of hospital visits; # Suspected cases only*

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