West Nile fever in Tunisia

As of 8 October 2018, the Ministry of Health of Tunisia reported 177 suspected cases of West Nile fever (WNF). Out of these, 22 are probable and 17 are laboratory confirmed cases. One death has also been reported in a 27 year male who was hospitalized for meningo-encephalitis in September 2018.

Editorial note

West Nile Virus (WNV) is a member of the flaviviruses genus and belongs to the Japanese encephalitis antigenic complex of the family Flaviviridae. WNV infection is a non-contagious disease, primarily transmitted by the bite of infected mosquitoes of the genus Culex. The infection is often asymptomatic (80%) but, when clinically apparent, symptoms range from an influenza like symptom to more severe neurological disorders and approximately 1% of cases may present with severe symptoms. The incubation period of West Nile fever is usually between 3 to 14 days.

WNV is endemic in Tunisia. The virus circulates in endemoeidemic mode in the country. Since 1997 till 2012 three major upsurge of WNV cases were reported in the country with sporadic circulation of the virus in other years (Please see table).

From the beginning of 2018 till first week of October, a total of 177 suspected cases of West Nile fever were reported of which 17 cases were confirmed by RT-PCR. Most of the cases were reported during the rainy season of late August and the month of September (Please see graph).

Since 2010, the ministry of health of Tunisia is frequently conducting human surveillance for WNV infections to detect early circulation of the virus and implement early prevention and control measures.

In order to contain the current upsurge of the cases in the country, the Government has already enhanced surveillance and standardized case management through distribution of guidelines and protocols in health care facilities.

Human infection is most often the result of bites from infected mosquitoes. Mosquitoes become infected when they feed on infected birds, which circulate the virus in their blood for a few days. To date, no human-to-human transmission of WNV through casual contact has been documented, and no transmission of WNV to health care workers has been reported.

In the absence of a vaccine or any specific treatment, the only way to reduce infection in people is by raising awareness of the risk factors and educating people about the measures they can take to reduce exposure to the virus. Effective prevention of human WNV infections depends on integrated vector control programmes in areas where the virus occurs. Emphasis should be on source reduction with community participation.

Update on outbreaks in the Eastern Mediterranean Region

MERS in Saudi Arabia; cholera in Somalia; cholera in Yemen; Dengue in Yemen.

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

Avian influenza: 2006-2017
- Egypt (A/H5N1) [359 (122), 34%]
- Egypt (A/H9N2) [4 (0)]

Ebola virus disease (EVD): 2018
- Democratic Republic of Congo (DRC) [177 (113), 63.8%]

Dengue fever: 2018
- Yemen [1 188 (7), 0.6%]

Rift Valley fever: 2018
- Kenya [95 (11), 11.6%]
- Uganda [23 (8), 34.8%]

Cholera: 2017-2018
- Somalia [6 423 (42), 0.7%]
- Yemen [1 234 693 (2 551), 0.2%]
- Tanzania [4 103 (78), 1.9%]

Diphtheria: 2018
- Yemen [1 904 (98), 5.1%]
- Bangladesh [8 202 (44), 0.5%]

MERS: 2012-2018
- Saudi Arabia [1 882 (729), 38.7%]

Yellow Fever: 2017-2018
- Brazil [1 266 (415), 32.7%]