Dengue fever in Oman

The Ministry of Health, Sultanate of Oman reported an outbreak of dengue fever, which started during second week of December 2018, and till 12th January 2019, a total of 48 dengue fever cases were reported and these cases are probably the first locally-acquired dengue fever cases ever reported from Oman.

Editorial note

The country reported its first imported dengue fever cases in 2001. Since 2001, the number of travel-associated dengue fever cases were reported in the country on a regular basis (See graph). During 2018 and till 12th of January 2019, the country reported 48 dengue fever cases, most of them were in travelers returning from dengue endemic countries. On 15th December 2018, the IHR national focal point for Oman notified WHO of three confirmed, locally acquired/indigenous dengue fever cases (with no travel history to dengue endemic or dengue fever reporting countries), in Al-Seeb district, Muscat governorate. The circulation of dengue serotype - DEN-2 has been confirmed at the Central Public Health Laboratory (CPHL) in the country.

The main vector of dengue virus transmission - Ae. aegypti, is well established in south of Oman but no local transmission of dengue fever was previously reported from the country. Owing the fact that the vector is well established and the country is reporting travel-associated case of dengue fever and now indigenous cases as well, the current situation needs to be responded with a sense of urgency.

The Ministry of Health is conducting interventions to control and mitigate this outbreak, including enhancing human and entomological surveillance, vector control activities such as door to door visit, fogging, as well as health education campaigns to raise awareness of the risk of dengue fever and eliminate breeding sites of Ae. Aegypti.

Vector control is the key intervention to prevent dengue fever by controlling mosquitoes and interrupting human-vector contact. A global vector control response (GVCR) 2017-2030 was developed in 2017 as a new strategy to strengthen vector controls worldwide by increasing capacity and enhancing surveillance and coordination across different sectors. (See table). The member states are encouraged to adapt this useful tool in the local context for appropriate vector control.

In view to strengthen clinical case management, it is important to adapt the dengue case management guidelines to the country context emphasizing on triaging, having clear clinical and laboratory criteria for hospital admission and discharge and also having proper flow diagram for IV fluid management, monitoring parameters, etc.

There is now an urgent need to scale up the ongoing response measures to prevent geographic spread of cases. Surveillance needs to be strengthened in all the districts of the Muscat governorate as well as in the neighbouring districts using a standard epidemiological case definition. Surveillance data should be used to monitor the progression of the outbreak, the size and nature of this outbreak. At the same time, surveillance data should be used to map out cases and enhance targeted interventions for vector control. Entomological surveillance also needs to be scaled up in the affected areas as well as in the adjoining areas of the Muscat governorate to guide interventions as well as to early detect any sign of outbreak spread.