Clusters of autochthonous chikungunya cases in Italy

Date: Friday 15th September 2017
Source: European Centre for Disease Prevention and Control, ECDC. Clusters of autochthonous chikungunya cases in Italy, 14 September 2017.

Two related clusters involving autochthonous transmission of chikungunya virus have been detected in the cities of Anzio and Rome, two areas located 60 km apart in the Lazio region of Italy.

Transmission of this type, in areas where Aedes albopictus mosquitoes are established and at a time when environmental conditions are suitable for increased mosquito abundance and activity, is not unexpected.

This event is the second introduction of chikungunya local transmission in Italy resulting in an outbreak, following a previous outbreak in the Emilia-Romagna region in 2007. Other autochthonous transmission events were detected in France in 2010, 2014 and 2017.

The fact that the first transmission event is estimated to have taken place around mid-July 2017 (or before), that cases have been reported in two separate areas, and that several additional symptomatic cases are being investigated suggests that local transmission has been effective in spreading the disease.

As a consequence, more cases are expected to be identified in the near future. Given that environmental conditions in the area are expected to remain similar in the coming weeks, the likelihood of further transmission in the Lazio region is high.

Early detection of imported cases is critical to prevent establishment of local transmission following the introduction of chikungunya virus by a viraemic traveller to an area where Aedes albopictus is established. Early detection of imported cases during the season of high mosquito activity in areas where Aedes albopictus is established relies on increased awareness among clinicians and travellers returning from areas with chikungunya transmission, combined with appropriate laboratory detection capacity.

The detection of an autochthonous case should trigger epidemiological and entomological investigations to assess the potential of onward transmission and guide vector control measures aimed at lowering mosquito population density.

Member States should consider reporting any confirmed case of chikungunya having travelled to Italy in the two weeks preceding the onset of symptoms to the Italian health authorities. This might help identify possible additional transmission foci around the affected area. In addition to coordinated vector control activities, community sensitization around transmission foci is important in order to inform people of the need for personal protection measures against mosquito bites and to engage local communities in the elimination of mosquito breeding sites.

Personal protective measures to reduce the risk of mosquito bites include the use of mosquito repellent in accordance with the instructions indicated on the product label; wearing long-sleeved shirts and long trousers, especially during the daytime when Aedes albopictus mosquitoes are most active; sleeping and resting in screened or air-conditioned rooms and using mosquito bed nets at night and during the day.
Travellers returning from areas where chikungunya transmission occurs should be advised to seek medical attention if presenting with symptoms compatible with chikungunya virus disease in the first two weeks after return, particularly if returning to areas where *Aedes albopictus* mosquito is established. This will help reduce the risk of further local transmission. The application of personal protective measures against *Aedes* mosquito bites by travellers in chikungunya-endemic areas remains a critical factor for preventing the introduction of the virus into EU areas with established *Aedes*-competent vectors and suitable conditions for transmission.

**Comment**
This is the first outbreak of chikungunya virus in Italy since the outbreak in the Province of Emilia-Romagna in 2007. The ECDC estimates that the outbreak may have started in mid-July and thus cases may have been missed.

The incubation period is up to 2 weeks, usually shorter. The key symptoms are muscle and, in particular, joint pain. Testing for chikungunya virus should be done in travellers from Central Italy with fever and joint pains.

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