

MOST URGENT



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Subject: Advisory for the Prevention and Control of Acute Febrile Viral Illness (Suspected Chikungunya Virus) Infection

In the wake of the recent upsurge in the number of Acute Febrile Viral Illness (suspected Chikungunya) cases reported from Karachi, it is imperative to be vigilant in collecting maximum information about the suspected cases, confirming the disease, advising preventive measures and take certain steps to interrupt further transmission. The objective of this advisory is to sensitize health care authorities to further strengthen and improve the level of preparedness in prevention and control of Acute Febrile Viral Illness (suspected Chikungunya) Infection.

Background: Chikungunya is a mosquito-borne viral disease which occurs in tropical countries and has been reported from Africa, South Asia and South-East Asia. The first case was reported from United Republic of Tanzania in 1952. India, Indonesia, Maldives, Myanmar, Sri Lanka and Thailand have experienced chikungunya disease outbreaks in the last few decades. Chikungunya fever is caused by Chikungunya Virus (CHKV), which is transmitted through the bite of an infected *Aedes* mosquito. The disease shares some clinical signs with dengue, and can be misdiagnosed in areas where dengue is common. However, the CHKV infections are rarely fatal without significant hemorrhagic manifestations. It is caused by RNA virus that belongs to the *alphavirus* genus of the family *Togaviridae*. It is transmitted to humans by infected mosquitoes. The proximity of mosquito breeding sites to human habitation is a significant risk factor. The viruses can circulate in the same area and cause occasional co-infections in the same patient.

Mode of Transmission: The virus is transmitted to human by the bites of infected female *Aedes aegypti* and *Aedes albopictus* mosquitoes. They bite mostly during the daylight (especially in early morning and late afternoon) and are easily recognized by the black and white stripes/spot markings on their bodies and legs. They breed in anything which can hold clean water including tyres, coconut shells, flower pots, storage jars and cooling systems. The eggs become adults within a span of 7–10 days. The mosquito can rest in and around houses, schools and other areas where it is dark, cool and shaded. Both species are found biting outdoors, but *A. aegypti* will also readily feed indoors.

Incubation period: After the bite of an infected mosquito, onset of illness occurs usually between 4 to 8 days (can be 2- 12 days). Viraemia persists for 5 – 7 days from the onset of symptoms.

Clinical presentation: Symptoms of Chikungunya infected individuals are often mild and unrecognized but sometimes become severe and characterized by an abrupt onset of fever may be accompanied by joint and muscles pain, headache, nausea, vomiting, fatigue and rash. Serious complications are not common, but the disease can be severe even lethal in older people, immune-compromised and patients with some underlying medical conditions. Occasional cases of gastrointestinal, eyes, neurological and cardiac complications have been reported. Chikungunya infection can occur at any stage of pregnancy and can be transmitted from mother to child during perinatal period. Clinical presentation of Chikungunya usually follows 3 phases as follows: