What is virus chikungunya?
Chikungunya virus (CHIKV) is an emerging pathogen that belongs to the Togaviridae family. It causes chikungunya fever (CHIKF), a febrile illness associated with arthralgia and rash. The name chikungunya derives from a word in Makonde (Bantu language) meaning “that which bends,” describing the stooped appearance of those people suffering the characteristic painful arthralgia. Although in most cases this virus is not severe, it has become a global threat due to the emergence in recent years of several outbreaks that have affected a large part of the population and to the lack of effective vaccines and antivirals [3]. The chikungunya virus is divided into three distinct lineages [2]:
- West African lineage.
- Eastern / Central / Southern Africa lineage (ECSA). This group emerged a new lineage, the lineage of the Indian Ocean (IOL).
- Asian lineage.

Transmission Dynamics
CHIKV is transmitted by the bite of mosquitoes of genus Aedes. There are two main vectors of CHIKV, A. aegypti and A. albopictus [3].

Risk factors for virus introduction
- The vector is present in region.
- Presence of individuals sensitive to CHIKV who have never been exposed to this virus.
- The arrival of travellers infected with CHIKV.

Epidemiology[4]
In 2013, autochthonous transmission was first detected in American Region. This outbreak has spread rapidly throughout the Caribbean and South America. 776,000 suspected cases until October 2014, have been reported with 152 deaths. In recent years the United States, Mexico and Europe have been of detecting imported cases of chikungunya coming from areas with epidemic transmission. Asian genotype

In 2007 the first local outbreak came into Europe, particularly into Italy. It was introduced by a viremic traveler returning from India. ECSA genotype - IOL lineage

In 2004, the CHIKV explodes worldwide producing a series of devastating outbreaks affecting up to 6.5 million people. It emerged in Kenya in 2004 and spread to several islands in the Indian Ocean, India and Southeast Asia. ECSA genotype - IOL lineage

Between 1960-1970 there were large outbreaks in Thailand and India. Asian genotype

Conclusions
Chikungunya virus has remained endemic in Africa and South-East Asia, but there was a series of outbreaks in other regions of the world where the virus is not endemic. The fact that this virus is transmitted by a vector, mosquito Aedes, and there are no effective vaccines the only tool available to prevent infection is to reduce human – vector contact.

Clinical manifestations
- 3% - 28% ↓ asymptomatic infections
Symptoms can last for 3-10 days but joint pain may persist for months
Mortality ↓↓

Treatment and vaccines
- There is no specific antiviral drug treatment for CHIKV.
- Treatment is symptomatic and is based on treating manifestations that appear during infection. In addition, patients are advised to drink plenty of fluids [3],
- Absence of an effective CHIKV vaccine.

Prevention and Control[5]
In the absence of an effective CHIKV vaccine, the only tool available to prevent infection is the reduction of human-vector contact.
- Use mosquito repellents on exposed skin or clothing.
- Wear long-sleeved shirts and long trousers.
- Should use Insecticide-treated bednets.
- Activate programs for vector control
  • Reduce natural and artificial water tanks
  • Using insecticides

References