

INF

SPC Library
 41784
 Bibliothèque CPS

INFORMATION CIRCULAR



Copy C

DATE: May 1988

CLASSIFICATION: Health

SERIAL No 109

DENGUE FEVER PREVENTION AND CONTROL IN THE PACIFIC

Introduction

Recently the Republic of Palau has reported an epidemic of dengue fever of over 900 cases to the South Pacific Epidemiological and Health Information Service. The last major Pacific-wide dengue epidemic was in 1979 and 1980.

In the view of the South Pacific Commission the potential for spread of dengue fever to other Pacific island countries will remain high in the coming months. This Information Circular on dengue prevention and control is to remind public health professionals and other health workers of methods for dengue control.

Epidemiology of dengue fever (breakbone fever)

Dengue fever is caused by a virus that is spread by mosquitoes. Symptoms of dengue may include a sudden onset of fever, intense headache, deep eye pain and joint, muscle and lower back pain. The duration of dengue fever is usually 1-2 weeks, but recovery may be slow with symptoms of fatigue and depression. Sometimes the dengue virus can cause severe complications such as dengue haemorrhagic fever and dengue shock syndrome. People with these complications should be hospitalised for proper supportive care. All suspect dengue cases should be reported to the local health authorities.

Dengue fever is spread when mosquitoes bite someone who is infected. About 8-11 days after biting the infected person, these mosquitoes are able to spread dengue whenever they bite someone who is not yet infected. People usually get ill about 5-6 days after being bitten by an infected mosquito. Dengue often spreads when a person who is infected elsewhere, but is not yet ill, returns home, where other members of the family become infected. Dengue then spreads through the local community and from village to village. Finally, dengue is spread to other islands through sea and air travel. These dengue outbreaks can be explosive, but fortunately deaths are uncommon.

The primary mosquito species that spreads dengue in the Pacific is the Aedes aegypti mosquito. This mosquito breeds rapidly on many Pacific islands because of the high rainfall, warm temperatures and lush vegetation. Aedes aegypti has adapted readily to areas where people live by breeding in any available standing water, including discarded containers that are common in many villages and towns.

Prevention and control of dengue fever

The spread of dengue fever can be controlled by stopping the mosquitoes from spreading the dengue virus in the following ways:

1. Reducing the number of mosquitoes

The best way to reduce the mosquito population is to get rid of suitable breeding sites. The following anti-mosquito environmental measures should be taken within the general area of any homes:

- (a) Drain or fill in puddles and other areas where fresh water collects.

LIBRARY

SOUTH PACIFIC COMMISSION

- (b) Bury empty tins and bottles and bury or burn other small containers and garbage (including empty coconut shells). Empty tins should be flattened before they are buried.
- (c) Buckets, drums, canoes and other large containers should be turned over or covered from the rain. Old tyres should be buried, burned or covered.
- (d) Open water tanks should be covered with rust proof mosquito netting or other mosquito-proof material such as rice bags.
- (e) Use a larvicide such as Abate in standing water that is not stocked with fish.
- (f) Clean bush from around home.
- (g) If the house has roof gutters, make sure they are cleaned of leaves and other rubbish.
- (h) Make sure that soakaways, septic tanks and grease traps are tightly closed. Fill in any holes and cracks around their tops.
- (i) Change water in flower vases, potted plant bases and animal dishes once a week and scrub container before refilling.

Though it is expensive, residual insecticide can be sprayed on the inside walls of homes or around the yard at night. Malathion and Fenitrothion are commonly used. Unfortunately, after a certain time mosquitoes will be resistant to the insecticide.

2. Preventing infected mosquitoes from biting other people

People can screen living and sleeping areas, use mosquito nets and spray the home with an insecticide like Baygon (propoxur). In addition, people can use insect repellent with DEET as an active ingredient. Mosquito coils and mosquito mats containing Pyrethrum can be used at night in the home.

3. Preventing mosquitoes from biting infected people

People suspected of having dengue fever should be kept away from mosquitoes for at least 5 days after the start of their illness, using the methods described in No.2.