

Impacts of Publicly Funded Dengue NS1 Antigen Rapid Test Program on Notification Timeliness, Taiwan, 2013–2017

Ling-Ling Lin*, Chu-Tzu Chen, Yu-Min Chou, Chin-Hui Yang

Abstract

Dengue is an acute infectious disease spreading by mosquitoes. Symptoms of patients may experience subclinical symptoms, fever, rash, or warning signs such as lethargy, restlessness or liver enlargement, even severe hemorrhage or organ damage. Because most patients have obscure symptoms, improving the detection of cases and the timeliness of notification and implementing vector control and epidemic investigation in early phase are keys to prevention of dengue epidemic. On September 17, 2015, Taiwan Centers for Disease Control entrusted National Health Insurance Administration to manage the publicly funded “Dengue NS1 Antigen Rapid Test program” to encourage medical institutions to utilize the reagents for early diagnosis. We analyzed the situation of medical institutions providing dengue NS1 antigen rapid diagnostic test. The program was implemented in 5 counties or cities, and the proportion of reagents provided by regional hospitals was the highest (87%), and the proportion provided by clinics was the lowest (8%). In addition, we found that after the implementation of the program, the notification timeliness of dengue fever confirmed cases improved both in medical institutions providing the tests and nationwide, indicating that the implementation of the program had positive impact on early detection of dengue cases and management of epidemics. In addition to using the rapid test, we recommended to raise the awareness of the public and healthcare professionals on clinical symptoms of dengue fever. Thus,

Division of Acute Infectious Diseases,
Centers for Disease Control, Ministry
of Health and Welfare, Taiwan
DOI: 10.6525/TEB.201908_35(16).0001

Corresponding author: Ling-Ling Lin*
E-mail: lingling@cdc.gov.tw
Received: Jun. 13, 2018
Accepted: Nov. 19, 2018

when an epidemic occurs, the community and neighboring medical institutions could respond earlier in seeking medical care and alertness in case notification to reduce the risk of outbreak spreading.

Keywords: Dengue, Dengue NS1 antigen rapid test, notification time