OBJECTIVE Currently, many screening tests for swine flu are available. A major concern is the cost-effectiveness of the test used. Here a basic cost-effectiveness analysis is made of the available basic screening tests for swine flu in the pandemic situation. METHOD This investigation was designed as a standard cost-effectiveness study of the five tests available in Thailand. RESULTS According to this study, the cost-effectiveness per turnaround time of the rapid test is the lowest alternative. CONCLUSIONS Based on a cost-effectiveness analysis, the rapid test appeared to be the most appropriate screening test for swine flu.
DISCUSSION

Swine flu is currently an important pandemic disease, but it can be underdiagnosed because it may be confused with other common febrile diseases. The most accurate diagnosis of swine flu is based on the determination of genetic content by molecular-based techniques, which might take a very long waiting time and is therefore of limited use in everyday clinical practice. For this reason, the gold standard for diagnosis based on molecular-based methods has to be rethought for its actual clinical usefulness.

During the pandemic, several screening tests have been introduced for routine use, ranging from the simple rapid test (strip test) to special molecular-based testing. Due to the present economic crisis in Thailand and other tropical countries, however, not only the diagnostic sensitivity but also the cost-effectiveness of all screening tests must be considered. In some developed settings, the real-time PCR test might be included as a cost-effective option, but this needs to be validated in resource-limited settings.

According to this cost-effectiveness evaluation of the tests available in Thailand, the overall cost-effectiveness of the rapid test is the lowest. When the turnaround time is not taken into analysis, this test appears to be inferior to other tests, and the fluorescence-biosensor test appears to be the best. However, as having the earliest accurate diagnosis is the key to success in the control of a pandemic, the rapid test gave the overall most satisfactory result.

In conclusion, a cost-effectiveness study performed to compare several basic screening tests in the rapid diagnosis of swine flu showed the rapid test to be the most cost effective.

CONFLICT OF INTEREST

None.
References


Corresponding author:
V. Wiwanitkit, Wiwanitkit House, Bangkhae, Bangkok 10160, Thailand
e-mail: wviroj@yahoo.com