Implementation of a new syndromic surveillance system in April 2006 in French Guiana

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OBJECTIVE

This paper describes a new syndromic surveillance system installed in French Guiana in April 2006 during an outbreak of dengue fever.

BACKGROUND

An outbreak of dengue fever has occured in French Guiana since the end of November 2005 until July 2006. The dengue serotype circulating was DEN-2, responsible of more than 2 000 confirmed cases and 4 deaths. The previous surveillance system was only based on the laboratories data, and didn't permit to assess the real situation of dengue infection within the population of French Guiana. Actually, the dengue fever being a viral infection for which no etiological treatments nor immunization were available, a lot of general practioners (GP) didn't send their patients to laboratories but prescribed only a symptomatic treatment. A survey made on the field during February 2006 in a town of 5000 inhabitants in the West of French Guiana showed that the real situation within the population was really more important than the one evaluated by the current surveillance system (135 suspected cases for only 13 confirmed cases reported by the network of laboratories). For that reason, it was decided to put in place a syndromic surveillance system, which can permit to have a better knowledge of the situation for dengue fever. The objectives of this new system were i) to detect earlier the beginning of an outbreak ii) to have a better estimation of the impact of the outbreak within the population and iii) to permit the evaluation of the Public Health strategy set up.

METHODS

A clinical netwotk was created, consituted by 19 GP (27% of the GP working in French Guiana), 3 hospitals' emergency units, the health centers all over the county (existing in remote places where no GP are installed) and the health facilities of the military units. A suspected case was defined by the occurence of fever (> 38°C) without infectious evidence (as malaria for example), associated with one or more of those symptoms : headaches, aches among articulations, muscles or behind eyes. The clinical data were daily collected by all the physicians involved and weekly collected by telephone, mail or fax in the center of control in Cayenne. Those data were confronted with the lab's data and the analysis made by the epidemiological team. The results of this analysis is now currently sent every week to the Health Authorities in Cayenne and in Paris as well, but also to all the stakeholders of the system.

RESULTS

The implementation of this syndromic surveillance system has permitted to show that the spread of dengue fever in French Guiana was more important than the one estimated only with the lab's data. Since the beginning of April, it permitted to detect 6 900 suspected cases (for whom no biological search of dengue was made or available) when only 800 confirmed ones where reported by the laboratories. As a result, the French Ministry of Health set up more means and money to control the situation, especially for the vector control of the disease. A work is currently done to evaluate this new system in terms of simplicity, representativity, acceptability, sensibility, predictibility, reactivity and flexibility [1].

CONCLUSIONS

Implementation of such a system has shown its usefulness and this approach will be generalized in French Guiana in the next months for some other tropical diseases, taking into account the results of the current evaluation.

REFERENCES

[1] CDC. Framework for evaluating public health surveillance systems for early detection of outbreaks; recommendations from the CDC Working Group.

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