

Communiqué on the plague epidemic in Madagascar

An epidemic of pulmonary plague has prevailed in Madagascar since the beginning of September. To date, investigative teams from the Ministry of Public Health, supported by the Institut Pasteur of Madagascar, IPM and WHO, have identified 85 suspect cases, including 19 in the capital Antananarivo, of which 17 are deceased. Most cases were in contact with each other either during regional transport travel, or within the same family or student group.

Response measures are being implemented and the data (exact number of cases and deaths) are being validated. The WHO's situation analysis showed that the contagion risk at the national level is high, moderate at the regional level (ie the neighbouring islands of the Indian Ocean) and low at the global level. To this end, WHO has set the support for the epidemic response at level 2 out of 3, meaning that a need for resources (human, material and financial) exceeding that of the country level is required to effectively respond to this epidemic. The Regional Office and WHO headquarters are assisting the country for the response.

I. Reminder

Plague is a zoonosis (animal disease) affecting small rodents (rats most of the time) and which is transmitted episodically from animal to human through infected flea bites or directly by inhalation in the case of pulmonary plague.

In Madagascar, plague episodically affects people in the rural areas, more rarely in cities. Confined on the highlands of the country, it presents each year a seasonal recrudescence between October and March, although cases can appear throughout the year. Some 300 to 600 suspected cases of plague are reported annually in the country in recent years, including some thirty cases of plague and 10 to 70 deaths. The human epidemic is the translation of murine epizootics (epidemics in rats) that have been mostly unnoticed. The appearance of cases of secondary pulmonary plague gives rise to family or local epidemics, which can then appear even in non-endemic areas, as is the case in Tamatave.

Infected individuals usually have flu-like symptoms. Typical signs include abrupt onset of fever, chills, headache, body pain, weakness, vomiting and nausea, accompanied by either very painful lymph nodes in cases of bubonic plague or respiratory signs (cough, breathing difficulties, sputum more or less tinged with blood) in the case of pulmonary forms. The confirmation of cases during the epidemic is made by examining the biological fluids (blood, sputum, post-mortem biopsy, buboids), but a very reliable rapid test can also give the results in 15 minutes.

The cure is without aftereffects under well-conducted treatment and treatment is free of charge. However, in the absence of treatment, plague can be very severe with a case fatality rate of 30-60% for the bubonic form and is almost always fatal in its pulmonary form. All persons who have been in contact with a confirmed case of plague during the active phase of the disease should also be treated (chemo-prophylaxis).

II. The actions of the Ministry of Public Health of Madagascar in collaboration with the IPM WHO country

- ❖ A crisis unit composed by the Ministry of Health, WHO and IPM is set up for the management of the crisis situation and for the drafting of a response strategy at all levels.
- ❖ In an emergency, to control the situation :
 - Teams have been deployed at the scene for in-depth investigations, active investigation of possible cases and suspects and contacts;
 - Response measures are already in place, such as immediate case management, extensive chemoprophylaxis of potential contacts (in the process of reorganisation) and disinfection of the premises ;
 - Awareness-raising of the communities concerned on transmission modes, symptomatology, plague prevention and, in particular, immediate recourse to the nearest health centre in case of suspicious signs for free care.
- ❖ Epidemiological surveillance is being strengthened in all health centres in collaboration with community workers to early detect suspected cases for immediate management to reduce mortality.

The response actions are aimed at avoiding outbreaks of plague by strengthening surveillance and helping the country to develop response strategy and implement field-based control activities.

III. Preventive measures :

They are essentially aimed at reducing human transmission of plague and avoiding the development of epidemics:

- ❖ Advise the public to take necessary precautions against flea bites and not to manipulate animal carcasses ;
- ❖ Fight rodent reservoirs of *Yersinia Pestis* (bacillus responsible for plague): especially rats;
- ❖ Avoid direct contact with infected tissues, such as buboes, or any close exposure to patients suspected of plague ;
- ❖ Use the nearest health centre in case of suspicious symptom ;
- ❖ For personal care workers and those in direct contact with plague patients, wear personal protective equipment and take chemoprophylaxis during exposure;
- ❖ Practice the safe burial of corpses of people who have died of plague according to the recommended standards;
- ❖ Perform disinfection and deinsectisation of rooms where plague cases have occurred.



Mapping of the cases

