

The Pan American Health Organization / World Health Organization (PAHO/WHO) recommends Member States of the Region to strengthen prevention and control activities of the canine variant rabies virus in order to reduce the occurrence of human cases. Member States are also reminded to ensure access to the vaccines¹ and post-exposure prophylaxis for exposed persons.

Situation summary

While human rabies transmitted by dogs is in the process of being eliminated in the Americas, some countries in the Region continue to register human rabies cases transmitted by dogs. Since the beginning of 2014 to date, the following human cases of canine origin rabies were reported: 6 cases in Bolivia, 3 cases in Haiti, 2 cases in Guatemala, 1 case in Brazil, and 1 case in the Dominican Republic.

In addition, canine rabies cases have been reported in places that had previously not recorded cases such as northern Argentina (Jujuy and Salta), Brazil (Mato Grosso do Sul), Paraguay (Loma Plata) and in areas declared free of canine rabies more than ten years ago, such as the region of Arequipa in Peru. This is the first occurrence of the reintroduction of canine rabies in an area that was previously officially declared free of canine rabies.

Rabies background information

Rabies is caused by the rabies virus, which belongs to the *Rhabdoviridae* family, within the *Lyssavirus* genus, which infects domesticated and wild animals and is transmitted to humans through rabies infected saliva (through skin and mucous membranes, by bites and scratches).

The incubation period is variable, but usually ranges from 2 to 8 weeks; and very rarely as short as 10 days or as long as several years. The first symptoms of rabies include a sense of apprehension, headache, low-grade fever, malaise, and vague sensory changes (paresthesia) often at the site of an animal bite. Once symptoms appear, the disease is almost always fatal. Hence the importance of post-exposure prophylaxis with both the vaccine and immunoglobulin, according to the severity of the situation.

For surveillance and control purposes, it is essential to make the connection between a person's exposure to a suspected animal with rabies and an area where the disease has been occurring in humans and animals. The best strategy to prevent human cases is through the vaccination of pets, mainly dogs, and through timely and appropriate use of prophylaxis for persons at risk of rabies.

¹ Use of World Health Organization (WHO) pre-qualified vaccines is recommended.

Nonetheless, rabies is entirely preventable and the occurrence of human cases is related to failures in canine vaccination campaigns, in the promotion of health, surveillance and control by health care systems and in a lack of access to health care. The cases described in this Alert are concentrated in urban and international border areas and are related to poverty and/or unfavorable environments. Given that this reflects limitations in access to universal health care, this requires the prompt attention of health authorities.

Anyone exposed to the rabies virus should receive post-exposure prophylaxis.

The prevention of human rabies must be a joint effort involving veterinary and public health services. Safe and effective vaccines for preventing animal rabies exist, as do vaccines for administration to humans pre and post suspected exposure.

Recommendations

Through this alert, PAHO/WHO reinforces its recommendation to the countries of the Americas to continue immunizing dogs and to have post-exposure prophylaxis (WHO pre-qualified rabies vaccines and immunoglobulin) available to respond to potential suspected cases. PAHO/WHO also emphasizes that health care workers should be trained in identifying suspected cases and to promptly administrate prophylaxis.

PAHO/WHO recommends:

- Carry out mass vaccination campaign of canines until appropriate and sustainable immunity levels are achieved (above 80% of the estimated canine population). This is the most efficient and cost-effective method for the control and elimination of human rabies transmitted by dogs. Vaccination of domestic animals (mainly dogs) has been demonstrated as decreasing the occurrence of human disease up to its elimination.
- Raise public awareness to ensure persons seek immediate medical attention for suspected exposure to the rabies virus.
- Use effective and safe WHO pre-qualified vaccines for humans for the pre and post-exposure prophylaxis for persons exposed to the rabies virus. The rabies vaccines and immunoglobulins used for prophylaxis should comply with the [WHO 2010 position paper](#). Administration of these vaccines should be guided by the updated [WHO guidelines](#) on rabies pre and post-prophylaxis for humans.
- There is no contraindication for post-exposure prophylaxis for pregnant women, infants, the elderly or immunocompromised individuals, including children with HIV/AIDS. The number of people attacked by dogs who fall within the WHO categories of exposure I, II, and III², for whom prophylaxis was not recommended, is an indicator of the implementation of universal health care access in areas where anti-rabies prophylaxis is indicated because of a persistent risk.

² Categories of exposure and post-exposure prophylaxis are defined in the WHO Expert Consultation on rabies. Second report. WHO technical report series ; no. 982. available at http://apps.who.int/iris/bitstream/10665/85346/1/9789240690943_eng.pdf

- Inform the public and health care workers that cleaning wounds and getting post-exposure vaccinations as soon as possible after contact with an animal suspected of having rabies, can prevent the onset of rabies in 100% of exposures.
- Remind health care workers to begin immediate post-exposure treatment for exposed persons; the treatment should only be stopped if the attacking animal shows no signs of rabies while under observation.³ If the animal is dead, by slaughter or otherwise, it must be tested for the rabies virus; the results should be sent to the veterinary and public health services responsible for planning and implementation of control activities in the area where the exposure occurred.
- Raise awareness of health care workers to consider rabies as a possible diagnosis in patients that show acute or progressive encephalitis, and train them to provide timely and appropriate prophylaxis to those exposed.
- Acquire human immunobiologicals (WHO pre-qualified vaccines and immunoglobulin) and canine anti-rabies vaccine in order to respond to a possible human rabies case.⁴

In addition, PAHO/WHO reiterates the recommendations made in the 2010, 2011 and 2014 Epidemiological Alerts on rabies regarding the need to develop strategies to ensure access to pre-exposure prophylaxis for persons, based on the risk characterization of areas, considered most at risk of exposure to rabies, for example people who live in or visit rainforests due to the risk of exposure through bat-bites or by other wild animal suspected of rabies.

Related Links

- Rabies. World Health Organization Fact Sheets. Available at: <http://www.who.int/mediacentre/factsheets/fs099/en/index.html>
- Veterinary Public Health Area/ PANAFTOSA, PAHO/WHO – Rabies. Available at: http://www.paho.org/panaftosa/index.php?option=com_content&view=article&id=509:rabia&Itemid=0
- The Global Alliance for Rabies Control. Available at: <http://rabiesalliance.org/rabies/>

References

1. WHO Expert Consultation on Rabies. Second Report 2013. WHO Technical Report Series; N.º 982. Available at: http://apps.who.int/iris/bitstream/10665/85346/1/9789240690943_eng.pdf?ua=1
2. Transport of Infectious Substances. Geneva. World Health Organization, 2010 WHO/HSE/IHR/2010.8. Available at: http://www.who.int/csr/resources/publications/biosafety/WHO_HSE_EPR_2008_10/en/

³ The recommended observation period for canines is 10 days.

⁴ To support national programs in their rabies prevention actions, PAHO/WHO offers Member States use of the vaccine procurement system through the Revolving Fund as an option for the acquisition of such inputs.

3. Rabies vaccines WHO position paper. Weekly Epidemiological Record. No. 32, 2010, 85, 309–320. Available at: <http://www.who.int/wer/2010/wer8532.pdf>
4. WHO Guide for rabies Pre and Post-exposure Prophylaxis in Humans (updated 2013). Available at: http://www.who.int/rabies/PEP_Prophylaxis_guideline_15_11_2013.pdf?ua=1
5. Rabies Transmitted by Vampire Bats in the Amazon Region: Expert Consultation, 10-11 October 2006. Summary available at: <http://www.paho.org/english/ad/dpc/vp/rabia-murcielagos.htm> Full document in Spanish available at: <http://www.paho.org/spanish/ad/dpc/vp/rabia-murcielagos.pdf>
6. Final Report of the 14th Meeting of the National Rabies Programs Directors of Latin America (REDIPRA). 2013. Available in Spanish at: <http://bvs1.panaftosa.org.br/local/File/textoc/REDIPRA14.pdf>
7. Peru Ministry of Health. DECRETO SUPREMO N° 013-2015-SA Declara en Emergencia Sanitaria por el plazo de noventa (90) días calendario, a la provincia de Arequipa y sus veintinueve (29) distritos y a la provincia de Camaná y sus ocho (8) distritos, en el departamento de Arequipa. 7 May 2015. Available at: <http://www.elperuano.com.pe/NormasElperuano/2015/05/07/1234092-3.html>
8. Argentina Ministry of Health. Casos de rabia canina en las provincias de Salta y Jujuy. Riesgo para la salud humana. Alerta Epidemiológica N° 3. 28 April 2015. Available at: <http://www.msal.gov.ar/images/stories/epidemiologia/alertas-2015/28-04-2015-alerta-rabia-syj.pdf>