

RAG

Risk Assessment Group

PRIMARY RISK ASSESSMENT

Public Health risk of rabies in Belgium

Date of the signal	Date of the RA	Signal provider	Experts consultation	Method
11/10/2017	13/10/2017	Press	Permanent experts: Dr D. Reynders (SPF), Dr. V. Laisnez (AZG), Dr C. Schirvel (AViQ), Dr R. Mahieu (COCOM), Dr P. Demol (CSS), Mme M. Thomas (DG), Dr S. Quoilin (WIV) Experts : Jean Vanderpas (NRC WIV), Patrick Soentjens (ITG), Géraldine Boseret (AFSCA)	Email consultation
Date of update	Closing date			

RAG persons of contact: Dr Sophie Quoilin (Sophie.quoilin@wiv-isp.be, 02/642.54.04), Javiera Rebolledo (javiera.rebolledo@wiv-isp.be), Dr Tinne Lernout (tinne.lernout@wiv-isp.be)

PRIMARY RISK ASSESSMENT OF POTENTIAL PUBLIC HEALTH EVENT

Signal		<p>On October 11th 2017 a case of rabies has been identified in a 10 years old boy in France.</p> <p>The exposure to the virus might have occurred while playing with a puppy during a trip to Sri Lanka in August. A nibbling had caused a small wound but as the puppy did not appear to be ill, the risk was not identified and the unvaccinated child did not receive post-exposure prophylaxis.</p> <p>The suggestive symptoms (like anxiety, confusion, ...) of rabies encephalopathy started on 1st October. The child is actually in extremely bad condition with nearly no hope to recover.</p>	
Description		Score	Description / arguments
1	Cause known?	Yes	<p>Rabies is a well-known disease caused by rabies virus. Classic rabies is a zoonosis for which main reservoirs are wild and domestic canids worldwide, and bats in America and Australia.</p> <p>Rabies is present on about 150 countries, with over 95% of human deaths (~60.000/year) occurring in Asia and Africa.</p> <p>Belgium is free from classic rabies since 2001 thanks to an elimination program carried out through oral vaccination of foxes. Vaccination of dogs and cats against rabies is not anymore mandatory in Belgium since May 2016, as long as the animals won't leave the country (otherwise, this is an official obligation, even if the destination is a rabies-free-country). However, two cases of imported rabies have been detected in 2007 and 2008, in puppies brought illegally to Belgium from Morocco.</p> <p>In 2016, a first indigenous case in a bat was detected in Belgium signing that the circulation of the virus (Bat Lyssavirus 1b européenne (EBL1b)) could not be excluded. Such contamination of bats has also been identified in others EU countries.</p>
2	Unexpected/unusual	Unusual	<p>In Belgium, no autochthonous case identified in human after 1930.</p> <p>Risk of rabies is mainly related to travel. Between 2011 and 2015, gammaglobulines were administrated to about 8 exposed travellers a year (range 0 to 19) and post exposure vaccination to about 150 exposed travellers a year (range 131 to 185).</p>
3	Severity	High	Without pre- or post-exposure prophylaxis the infection leads to death within 2 weeks after onset of clinical symptoms.
4	Dissemination (Low/Medium/High)	Low	The risk of transmission of rabies exists only if bitten, scratched or when the saliva of an infected animal

			<p>comes into contact with a person's wound.</p> <p>Bats do not represent a risk for the population as long as they are not handled with bare hands.</p> <p>Human to human transmission has never been reported and is therefore extremely unlikely. In very exceptional cases human transmission associated with tissue, cornea and organs transplants have been reported, but this is very rare.</p>
5	Risk of (inter)national spread		NA
Preparedness and response			
6	Preparedness	Does exist	<p>Pre-exposure vaccination It is proposed by a large network of travel clinics to people planning to travel to endemic area.</p> <p>Diagnostic capacity The capacity exists. Several tests are available at the National reference centre at WIV-ISP (Rapid Fluorescent Focus Inhibition Test, Fluorescent Antibody Test, Real-time PCR).</p> <p>Treatment Gammaglobulines and vaccines are available in Belgium and the administration is under the coordination of the Institute of Tropical Medicine where a permanency 24h/24 of medical doctors, specialists in travel medicine, is ensured.</p>
7	Specific control measures (surveillance, control, communication)	Do exist	<p>Surveillance of the circulating rabies virus (in animals and humans) is carried out by the WIV-ISP since decades.</p> <p>Notification is mandatory in Flanders, Brussels and Wallonia when suspicion of rabies infection in a patient after exposure to potentially infected animal.</p> <p>Rabies cases of domestic animals have to be notified to AFSCA/FAVV, which is the competent body for domestic animals. Positive wild animal have to be notified to the Regions.</p> <p>Vaccines are available and there is no vaccine shortage in Belgium for the moment.</p>
Public health impact			
A	Public health impact in Belgium (Low/Medium/high)	Unchanged	This dramatic incident does not modify the risk in Belgium neither for the population neither for travellers to endemic areas. The child was bitten outside Europe in a country known to be endemic. The public health impact is unchanged and extremely limited while Belgium is well organised to deal with the risk of a rabies case.
B	Recommendations (surveillance, control, communication)		No additional recommendations.
C	Actions		No proactive communication as the risk for public

		<p>health remains the same and is not modified by this event.</p> <p>In order to try to decrease the number of travellers having to receive post-exposure prophylaxis some attention can be put on existing platforms to remind the necessary precautions :</p> <ol style="list-style-type: none"> 1. Diplobel website and travel clinics: travellers should consult a travel clinic to consider vaccination against rabies and avoid any kind of contact with animals in endemic countries. 2. Provide information to health professionals on this event in the next (monthly) Newsflash done by WIV-ISP together with federated entities and send to health practitioners, with mention of the same precautions in addition to a reminder about the new procedure related to the availability of post-exposure prophylaxis at ITG. <p>AFSCA could remind through a communication on their website, targeted to both professionals (veterinarians) and public that pets have to be vaccinated when travelling as they have to when they are imported and that contact with bats have to be avoided.</p>
--	--	--

REFERENCES

1. WHO RABIES MAP:
http://gamapsserver.who.int/mapLibrary/Files/Maps/Global_Rabies_ITHRiskMap.png?ua=1
2. WHO: <http://www.who.int/rabies/en/>
3. ECDC: <http://ecdc.europa.eu/en/healthtopics/rabies/Pages/index.aspx>
4. Reference center (NRC) :
 - a. https://www.wiv-isp.be/odobz-domti/fr/indexf079.html?page=virus_de_la_rageNational
 - b. https://nrchm.wiv-isp.be/fr/centres_ref_lab/rabies_virus/default.aspx
5. ITG : <http://www.itg.be/E/travel-health/diseases-and-vaccinations>