MEETING REPORT

Expert consultation on risk assessment and outbreak mapping tools for West Nile virus infection in Europe

Stockholm, 24–25 November 2011

Background

An expert consultation on risk assessment and outbreak mapping tools for West Nile Virus (WNV) infection in Europe took place at the European Centre for Disease Prevention and Control (ECDC) in Stockholm, Sweden, on 24–25 November 2011. The meeting was attended by 24 participants from 13 European countries and European and international agencies.

Objective

The objective of the consultation was to evaluate the completeness and usefulness of three tools that have been developed by ECDC to support public health preparedness for WNV infections in humans, and to propose key changes and modifications for improvement.

The tools were provided to the participants and they were asked to use them in various simulated scenarios. Comments were collected and tool-specific questionnaires were used to evaluate the soundness, practicability and usefulness of the developed tools for potential end-users.

The tools

The West Nile fever mapping tool

The tool displays in maps, tables and text accurate and timely information about reported autochthonous human cases of West Nile fever in the EU and neighbouring countries. These data are updated weekly and posted on the ECDC website. The tool is designed for use by National Competent Authorities for blood safety to support deferral decisions in accordance with the EU blood safety directive[1] and manage the impact on blood supplies.

[1] Directive 2002/98/EC of the European Parliament and of the Council of 27 January 2003 setting standards of quality and safety for the collection, testing, processing, storage and distribution of human blood and blood components and amending Directive 2001/83/EC. OJ L 33, 8.2.2003, p. 30–40.

Stockholm, May 2012

The West Nile virus risk assessment tool

This practical tool helps Member States with preparedness planning for, and risk assessment of, West Nile fever in humans. Taking into account relevant information from human and animal surveillance systems and environmental information, the tool highlights trigger indicators to identify various levels of risk and risk-free areas, questions to be addressed, options to enhance surveillance and response measures to be implemented.

The European up-front risk assessment tool (EUFRAT)

Designed to assist public health authorities with the decision-making process, this is a mathematical tool used to quantify the risk of blood-borne pathogen transmission through blood transfusion, not only in outbreak areas but also disease-free areas with travellers returning from outbreak areas.

Conclusions

The mapping tool was very well known and appreciated by the meeting participants. The following improvements were suggested:

- Clarify all major criteria with precise definitions.
- Include the EU case definition in the text.
- Make sure that the definition of 'affected area' will be harmonised with the EU preparedness plan for West Nile fever.
- Improve timeliness of reporting by setting up a network of people involved in immediate reporting of West Nile fever cases and an information exchange platform.
- Improve the tool by developing interactive maps.
- Reinforce the collaboration with agencies that collect information about WNV infection/cases in animals.

The risk assessment tool was appreciated by the meeting participants, as it could serve as guidance to develop and adapt national and regional preparedness plans for West Nile fever. The following improvements were suggested:

- Add detail and specificity to indicators to be used from surveillance systems.
- Add considerations for control measures to be implemented in each of the identified risk levels.
- Fine-tune the trigger indicators in each of the risk levels.

The EUFRAT was also appreciated by the meeting participants. The estimates it provides were thought to give a useful indication to take into account when prioritising public health measures for blood safety in the event of an outbreak. It was also found useful to harmonise the risk assessments at the European level. The following improvements were suggested:

- Clarify some criteria and state more clearly the assumptions made.
- Further validate the parameters used, especially in the early outbreak phase.
- Provide guidance on the definition of a level of acceptable and unacceptable risk.
- Develop assessment of risk from travellers.

Next steps

Comments and suggestions for improvement will be taken into account and implemented or supported by ECDC, to further develop the presented tools.

Agenda

Day 1. Epidemiology and risk assessment

9:00-9:15	Welcome and introduction talk with overview of the three tools and how they could be used together by a country	Hervé Zeller
9:15-10:45	• Spatial distribution: Presentation of the outbreak mapping tool • Risk assessment and decision making: Presentation of the risk assessment tool • Blood safety tools Presentation of the EUFRAT tool	L. Marrama A. Lenglet M. Janssen and W. Oei
10:45-11:15	Coffee break	
11:15-11:30	Working group organisation: scenario/question presentation and group splitting	A. Lenglet
11:30-12:30	WG 1-3 Scenario testing: use of the tool in the context of: 1. Country with WN history and current outbreak; blood safety measures taken	WG leaders
12:30-13:30	Lunch	
13:30-14:30	Feedback and discussion WG session 1	
14:30-15:30	WG 1-3 Scenario testing: use of these tools in the context of: 2. Country with no virus circulation and travellers coming from an affected area	WG leaders
15:30-16:00	Coffee break	
16:00-17:15	Feedback and discussion WG session 2 Questionnaire	

Day 2. Restitution

9:00-9:15	Welcome and introduction for day 2	H. Zeller
9:15-10:30	Presentation of other projects/tools: • Canadian WN fever surveillance system • DG SANCO: ADNS • OIE/FAO/WHO: WAHID and GLEWS (OIE)	 H. Zheng R. Freigofas K. Glynn
10:30-11:00	Coffee break	
11:00-12:00	WG in two groups to finalise findings/review from Day 1- questionnaire • Scenario studies: what did work, what not? • Usefulness? Ways of Improvement?	WG leaders
12:00-12:45	Summary and perspectives Conclusions of current meeting Possible evolutions and actions to come	L. Marrama A. Lenglet M. Carson
12:45-13:45	Lunch	
13:45	Final note	H. Zeller

List of participants

Name	Institution	Country
Åke Lundkvist	SMI - Smittskyddsinstitutet	Sweden
Ana Afonso	EFSA - European Food Safety Authority	Italy
Anca Sirbu	National Institute of Public Health	Romania
Caterina Rizzo	Istituto Superiore di Sanità	Italy
Chantal Reusken	Netherlands Centre for Infectious Disease Control	The Netherlands
Corina Posea	University Hospital Bucharest	Romania
Grégory L'Ambert	EID Méditerranée	France
Henriette de Valk	InVS - Institut de Veille Sanitaire	France
Hugo Osorio	National Institute of Health Center for Vector and Infectious Diseases Research	Portugal
Hui Zheng	Public Health Agency of Canada	Canada
Iva Christova	National Center of Infectious and Parasitic Diseases	Bulgaria
Katalin Krisztalovics	NCE - senior epidemiologist	Hungary
Kate Glynn	OIE - World Organisation for Animal Health	France
Kostas Danis	KEELPNO	Greece
Maria José Sierra Moros	DG of Public Health. Ministry of Health, Social Policy and Equality	Spain
Mart Janssen	University Medical Hospital Utrecht	The Netherlands
Miguel Angel Jimenez Clavero	CISA - INIA	Spain
Nikolas Vakalis	National School Public Health	Greece
Norbert Nowotny	University of Veterinary Medicine Vienna	Austria
Ramunas Freigofas	European Commission	
Romeo Bellini	Centro Agricoltura Ambiente	Italy
Ruth Offergeld	Robert Koch Institute	Germany
Silvia Villanueva	European Commission	
Simonetta Pupella	Italian National Blood Centre - Istituto Superiore di Sanità	Italy
Sylvie Lecollinet	ANSES - Laboratoire de Santé Animale	France
Teresa Fernandes	Directorate-General of Health	Portugal
Welling Oei	TTA- UMC Utrecht	The Netherlands
Zdenek Hubalek	Institute of Vertebrate Biology Academy of Sciences	Czech Republic
ECDC participants		
Annick Lenglet		
Eva Warns-Petit		
Herve Zeller		
Laurence Marrama		
Marianne Carson		
Wim van Bortel		