FLURISK

Development of a risk assessment methodological framework for potentially pandemic influenza strains

Ilaria Capua

efsa
European Food Safety Authority

Overall objective

Development and validation of a methodological risk assessment framework capable of assessing the pandemic potential of new influenza viruses or viral subtypes emerging in animals

EFSA does not require the assessment of the pandemic potential of specific viruses or subtypes (i.e. H5N1) but encourages the consortium to develop a **general methodological framework** enabling the assessment of the pandemic potential of **ANY** influenza virus selected.

Central questions

- What is the **current knowledge on the influenza virus etiology and epidemiology** in pigs, birds and other animals (i.e. cats, dogs, horses)?

- What are the scientific community and institutional stakeholders doing in terms of **influenza virus surveillance, monitoring and control**?

- What are the **scientific gaps** still present to be addressed?

- What are the **characteristics** which an animal influenza A virus must possess to be potentially pandemic?

- How can we **grade the pandemic risk** posed by a given animal influenza A virus?

Main project actions

- Reviews of the **influenza virus epidemiology and gene pool in pigs, birds** and other animals and humans **> WP1**

- Develop and validation of a **risk assessment framework** with pathways and links between the different elements, to evaluate the pandemic potential of influenza viruses **> WP2**

- Identify **relevant gaps** in monitoring of influenza viruses in animals and humans, where data would be needed for the RA framework, and **constraints of data sharing > WP3 , WP4**

- Promote **research areas > WP3**

Project Consortium

European project partners

- **Coordinator**: Istituto Zooprofilattico Sperimentale delle Venezie **(IZSVe)** – ITALY

- **P1**: Animal Health and Veterinary Laboratory Agency (**AHVLA**) – UNITED KINGDOM

- **P2**: Royal Veterinary College (**RVC**) – UNITED KINGDOM

- **P3**: National Institute for Public Health and the Environment (**RIVM**) – NETHERLANDS

- **P4**: Pasteur Institute (**IP**)- FRANCE

- **P5**: Ghent University (**UGent**) – BELGIUM

External partners

"Associated partners":

- Influenza Division of the Centers for Disease Control and Prevention (**CDC**)

- Food and Agriculture Organization of the United Nations (**FAO**)

External Advisors:

- European Food Safety Authority (**EFSA**)

- European Centers for Disease Control (**ECDC**)

- World Organization for Animal Health (**OIE**),

- World Health Organization (**WHO**)

OFFLU

- **Project duration**: 20 months (started in February 2012)

- Medical and veterinary **virologists**, **epidemiologists**, **statisticians** and **risk modelers** will establish **multi-disciplinary working groups** and **panel of experts**

- 4 highly integrated **Work Packages** (WP) with clearly defined tasks, milestones and deliverables and involving several partners each.

Core Idea

The core idea of the project is to address the call objectives by complementing Existing initiatives with European expertise, with the final aim of generating a GLOBAL EFFORT.

Existing Initiatives…

1) CDC Influenza Risk Assessment Tool under development and validation

Methodology

2) RIVM (NE) has developed a ranking tool to prioritising diseases, employing novel methodologies (i.e. multi-criteria analysis) for the weighting and scoring of risks categories

3) AHVLA (UK) has in place a disease prioritisation tool which ranks exotic and endemic animal diseases

FLURISK propose to **COMBINE** the most appropriate methods from the **CDC** risk assessment framework, the methods proposed by **RIVM** (*Havelaar et al.*), and other methods used by the risk assessment team (**AHVLA**), to develop the EFSA RAF.

- The **integrated CDC-EFSA RAF** will represent an unique example of <u>global effort</u> to address the questions:

- **What are the characteristics which an animal virus must possess to be potentially pandemic?**

- **How can we grade/rank the pandemic risk posed by a given animal virus?**

The RAF is **NOT intended to be a prediction tool** (i.e. the highest scoring virus is not to be interpreted as the next pandemic virus) but …..

…. is intended to provide an open, documented and systematic approach for **identifying and evaluating influenza viruses with pandemic potential** by considering all known relevant risk factors.

Thanks

Marco De Nardi (Project Manager)

mdenardi@izsvenezie.it

William Dundon (WP4 leader)

wdundon@izsvenezie.it