

**Working document on
surveillance and control measures
for
the **novel A/H1N1*** influenza virus in pigs.**

30.09.2009

New WHO name for the virus: 'pandemic H1N1 2009**'.*

Purpose: to provide guidance to the MS on:

a) surveillance /monitoring of novel virus

b) possible measures in affected pig farms

Intention: provide appropriate measures

Key principles: **vigilance, proportionality and flexibility**

Status quo (infection of pigs)

Novel virus is a subtype of influenza A (H1N1) viruses causing moderate/mild disease in humans

Novel virus is causing mild respiratory disease in pigs

Classical influenza viruses H1N1, H3N2 and H1N2 co-circulate widely in Europe (**partial cross-protection???**)

An **air-borne disease**, not a food borne zoonosis

Current vaccines may not be effective against the novel virus

Novel virus is expected to spread in humans AND pigs

Status quo (legislation)

No harmonized control rules are laid down in the EU legislation

There is no obligation for notification to the OIE

Some Member States have national legislation

Possible scenarios in the future

1. Uncomplicated and Mild disease in pigs
- *present situation*

2. Changes in the severity of the disease
 - *Virulence*
 - *Increased transmissibility*
 - *Increased zoonotic character*
 - *Epidemic in pigs*
 - *Endemic situation*

Objective of surveillance

- Early/timely detection of virus introduction/circulation in the EU

Surveillance strategy

- Targeted risk based surveillance
 - a) fundamentally epidemiological link to human cases
 - b) secondarily farms with influenza like illness in pigs (complex)

In a longer term, there is a need for comprehensive surveillance on influenza virus genotypes

Diagnostic

- Serology is not an option for surveillance
- Diagnosis of the novel virus remains an issue

New more efficient diagnostic tools and sufficient laboratory capacity will be needed

Ensure good cooperation with the human medicine labs

The **control measures** to be taken on pig farms should be proportionate to the following factors:

- A)** *the risk posed by pigs in the transmission of the novel virus to humans, if any, compared to the role played by human-to-human transmission*
- B)** *the severity of disease in animals and humans.*
- C)** *Risk factors in humans*

Available tools for control measures

- Stand still
- Quarantine
- Movement controls of live animals
- Vaccination (if suitable vaccine available)
- Slaughter (Culling) of infected herds
- Increased bio security
- Protection measures for humans

Control measures: under current scenario mild disease in pigs

- Enhanced biosecurity
- Sustainable quarantine

Feasibility and effectiveness of quarantine largely depends on the type of farm and should last in principle for one week after the last clinical case

Culling of infected pigs is not recommended

Vaccination of persons linked to the farm is recommended if a human vaccine becomes available

Control measures: new scenario severe disease in pigs

- Enhanced biosecurity
- Sustainable quarantine
- Movement restrictions (intra-farm)
- Epidemiological enquiry
- Limit occupational exposure
- Vaccination of pigs

Culling of infected pigs is not an option for disease eradication, however it should be carefully evaluated before implemented

Vaccination of persons linked to the farm is recommended if a human vaccine becomes available

Vaccination

■ Options:

- Compulsory vaccination in the control zone and epidemiologically linked farms
- Voluntary vaccination in the control zone and epidemiologically linked farm
- Voluntary vaccination in large infected farms containing several epidemiological units to reduce virus circulation and accelerate virus clearance

Vaccination remark

It has to be kept in mind that the vaccine will be an inactivated vaccine.

Two doses (two shots) with at least 2 weeks interval are needed and therefore it will last several weeks before the immunity is fully established.