

A/H1N1/2009



Activities at IZSVe

R&D Activity

- Implementation of molecular tests for A/H1N1/2009
 - RT-PCR for M gene and H1-pandemic specific (Peiris)
 - Real time RT-PCR for M gene (avian, swine, human flu), Spackman modified
 - Real time RT-PCR H1-specific (CDC protocol)
- Virus isolation for swine/human flu
 - SPF eggs
 - MDCK cells
 - Tests on different cell lines are in process

Reagents

- Development and production of
 - Reference Antigen (courtesy of Ruben Donis CDC, California/04)
 - Standard antigen (A/Italy/H1N1/09, field isolate)
 - Reference antiserum (rabbit and chicken)

Diagnostic activity

- Regional Diagnostic Laboratory for swine flu
 - Suspected cases submitted for molecular tests and virus isolation
 - Serological investigation
- Regional Laboratory for confirmation of human cases (May-July, 2009)
 - 87 cases submitted from regional hospitals
 - 20 cases confirmed by molecular tests and virus isolation
 - Sequenced and deposited in GISAID

Diagnostic activity

- Antiviral surveillance for A/H1N1/09
 - Implementation of pyrosequencing protocol (CDC)
 - » Targeting M-gene
 - » Targeting NA-gene
 - Development of alternative pyrosequencing protocols
 - 20 A7H1N1/09 isolates tested so far

Experimental infection of turkeys with H1N1 Italian strain in progress

- Infection of 10, 3-week-old poults to evaluate susceptibility to the virus, shedding and seroconversion
- Infection of 10, 70-day-old hens to evaluate the presence of the virus in meat and internal organs