2009-05-22-132 Influenza A (H1N1) - worldwide (34)
To: (05) Zoonoses, general
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INFLUENZA A (H1N1) - WORLDWIDE (34)
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A ProMED-mail post
<http://www.promedmail.org>
ProMED-mail is a program of the
International Society for Infectious Diseases <http://www.isid.org>

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[1] Albertan swine virus sequenced
Date: Fri 15 May 2009
Source: Canadian Food Inspection Agency [edited]

Scientists at the Canadian Food Inspection Agency's (CFIA) National Centre for Foreign Animal Disease (NCFAD) have mapped the full genetic sequence of the virus found in swine from Alberta, a development that will help scientists around the world better understand the virus and its affects on animals.

Influenza viruses do not affect the safety of properly handled and cooked pork. In close collaboration with their colleagues at Canada's National Microbiology Laboratory, CFIA scientists now have a complete picture of the virus detected in swine on an Alberta farm. This validates early test results and confirms that the virus found in the pigs is the same as the virus causing illness in humans around the world. The CFIA will share the diagnostic methods developed to identify the novel H1N1 influenza in swine with provinces and territories, international agencies and other countries to facilitate surveillance and detection activities.

Researchers are now focusing on how the H1N1 flu virus affects swine. Although more study is needed, early observations suggest that infected animals become sick and recover naturally, just as they would if exposed to influenza viruses commonly seen in swine herds at a global level. Ongoing CFIA research is examining whether or not other animals are susceptible to the virus. This information may be used to refine disease prevention and control measures. Studies are also underway to assess the effectiveness of current vaccines and to develop better and faster diagnostic methods.

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Communicated by:
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[The completion of this analysis confirms that the novel 2009 strain of A (H1N1) influenza virus was responsible for the outbreak of disease in pigs in an Albertan farm following their exposure to a farm worker carrying the novel strain of virus. Fortunately, the transmission of infection to the pigs has not resulted, so far as is known, in onward transmission to other humans on the farm, and the pigs were only mildly affected. - Mod.CP]

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[2] Clarification and comment
Date: Mon 18 May 2009
From: Richard Irvine <r.irvine@vla.defra.gsi.gov.uk>

Following the publication of the abbreviated and edited version of the article "Novel H1N1 influenza in people: global spread from an animal source?" (Irvine R.M. and Brown I.H. 2009. Veterinary Record 164:577-578) in the ProMED post of 16 May 2009 (Influenza A (H1N1) - worldwide (31), archive number 20090516.1835), we would like to make the following observation:
On 2 occasions, the edited version of the article incorrectly states that the "new variant of H1N1 virus contains 3 of 8 gene segments (encoding for the neuraminidase and matrix protein genes) that do not appear typical of the genes seen in current North American strains."

We would like to clarify further that the original published article referred, on each occasion, to the novel H1N1 influenza virus having "2 of 8 gene segments (encoding for the neuraminidase and matrix protein genes) that do not appear typical of the genes seen in current North American strains."

The full, unedited version of the article can be accessed at: <http://veterinaryrecord.bvapublications.com/cgi/content/full/164/19/577>.

The Veterinary Laboratories Agency (VLA) website at <http://www.defra.gov.uk/vla/diseases/dis_si.htm> also details further VLA information regarding swine influenza and surveillance for swine influenza in Great Britain as well as links to other veterinary and public health organization websites.

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[ProMED-mail apologies for the fact that abbreviation led to inaccuracy. We are indebted to Richard Irvine and Ian Brown for pointing out the discrepancy between the edited version and the original text.]

Interested readers are recommended to read the original unabridged text. - Mod.CP]

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[3] Indiscriminate use of Tamiflu
Date: Mon 18 May 2009
From: Julian Tang <jwtang49@hotmail.com>

With the recent explosion of A(H1N1/2009) cases in Japan, it will probably be prudent to monitor for Tamiflu (oseltamivir) resistance.
One Roche representative in Hong Kong told me that Japan accounts for about 70 percent of the world's use of Tamiflu (even before avian H5N1 and the new H1N1/2009 viruses appeared). Thus, if Tamiflu resistance occurs with this new A(H1N1/2009) virus anywhere, it may well 1st happen in Japan. Also, a language barrier may delay this revelation.

However, now Tamiflu is used in many countries (particularly in Europe) in patients for whom it was previously not recommended (i.e. otherwise healthy adults with no underlying chronic disease or immuno-suppression with uncomplicated infection with seasonal influenza virus) to try to curtail the onward transmission of this new A(H1N1/2009) virus.

So, if this continues, ironically, maybe the rest of the world will catch up with Japan as a potential source of Tamiflu resistance. This policy may be counter-productive in that if this fails to control the spread of this virus, then in those who eventually need Tamiflu for serious illness (if the feared more lethal 2nd wave of the pandemic does actually appear), it may be ineffective.

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[Dr Tang identifies an important issue, namely whereas the widespread use of Tamiflu with the aim of disrupting the transmission of the novel strain of H1N1 influenza virus is fully justified, indiscriminate use of Tamiflu in non-urgent situations may hasten the evolution of Tamiflu-resistant strains. Many, but not all, healthcare agencies are aware of this possibility. Fortunately, in the case of seasonal influenza strains, Tamiflu-resistance has not always been accompanied by cross-resistance to the other currently available neuraminidase inhibitor, Relenza. - Mod.CP]

[see also:
Influenza A (H1N1) - worldwide (33): case counts 20090517.1848
Influenza A (H1N1) - worldwide (32): case counts 20090517.1845
Influenza A (H1N1) - worldwide (31) 20090516.1835
Influenza A (H1N1) - worldwide (30): case counts 20090516.1831
Influenza A (H1N1) - worldwide (29) 20090515.1824
Influenza A (H1N1) - worldwide (28): case counts 20090515.1822
Influenza A (H1N1) - worldwide (27): case counts 20090514.1800
Influenza A (H1N1) - worldwide (26) 20090514.1798
Influenza A (H1N1) - worldwide (25): case counts 20090513.1785
Influenza A (H1N1) - worldwide (24): case counts 20090512.1772
Influenza A (H1N1) - worldwide (23) 20090511.1764
Influenza A (H1N1) - worldwide (22): case counts 20090511.1759
Influenza A (H1N1) - worldwide (21) 20090510.1749
Influenza A (H1N1) - worldwide (20): case counts 20090510.1741
Influenza A (H1N1) - worldwide (10): case counts 20090504.1675
Influenza A (H1N1) - worldwide 20090430.1636]