

WEEKLY SYNTHESIS OF SURVEILLANCE INFORMATION, LITERATURE & GOVERNMENT UPDATES

(WEEK ENDING DECEMBER 4, 2009)

GOVERNMENT UPDATES

CENTRE FOR DISEASE CONTROL (CDC)

December 4, 2009: CDC H1N1 Flu Surveillance Update.

<http://www.cdc.gov/h1n1flu/update.htm>

Weekly Flu View Map and Surveillance Report for Week Ending November 28, 2009.

<http://www.cdc.gov/flu/weekly/>

Map includes both seasonal flu and H1N1 flu activity. During week 47 (November 22-28, 2009), influenza activity decreased slightly in the US, however the proportion of outpatient visits for ILI was above the national baseline.

CDC Caring for someone sick at home (December 5, 2009)

<http://www.cdc.gov/h1n1flu/homecare/>

This flu season could be worse than most flu seasons with more people than usual getting sick. Hospitals and clinics may be much busier than normal. The good news is that most people with flu will be able to be cared for at home and will feel better in about a week. Learn what you can do to help your family this flu season.

Q&A: 2009m H1N1 Flu in the News (December 4, 2009)

http://www.cdc.gov/h1n1flu/in_the_news/antiviral_drugs.htm

CDC 2009 H1N1 and People with HIV/AIDS (December 1, 2009)

http://www.cdc.gov/h1n1flu/People_with_HIVAIDS.htm

People living with HIV infection, especially if they have AIDS or have low CD4 cell counts, can develop severe complications from influenza. They are one of the initial target group for the H1N1 flu vaccine and should be vaccinated with the inactivated form of the vaccine. They should also be vaccinated against seasonal flu with the seasonal flu shot. People with HIV infection who develop flu-like symptoms should consult their health care provider right away to determine if they need treatment.

PUBLIC HEALTH AGENCY OF CANADA (PHAC)

FluWatch Week 47 (November 22-28, 2009)

http://www.phac-aspc.gc.ca/fluwatch/09-10/w46_09/index-eng.php

Nationally, the activity levels reported this week continued to decrease compared to the previous week. All FluWatch influenza indicators declined during week 47. The pH1N1 2009 strain accounted for nearly 100% of the positive influenza A subtyped specimens this week.

Deaths Associated with Influenza A (H1N1) as of December 3, 2009

<http://www.phac-aspc.gc.ca/alert-alerte/h1n1/surveillance-eng.php>

The Public Health Agency of Canada (PHAC) is committed to sharing information about the impact of the H1N1 flu virus in Canada. Every Tuesday and Thursday at 4 p.m., the Agency will issue national updates on H1N1-associated deaths. In addition, PHAC will issue special reports on any unusual cases or clusters.

Weekly Distribution of the H1N1 Vaccine (December 6, 2009)

<http://www.phac-aspc.gc.ca/alert-alerte/h1n1/vacc/dist-eng.php>

Vaccine Surveillance Report (December 4, 2009)

<http://www.phac-aspc.gc.ca/alert-alerte/h1n1/vacc/addeve-eng.php>

ONTARIO

Ontario Influenza Bulletin 2009-2010, Surveillance Week 47 (November 22-28, 2009)

http://www.health.gov.on.ca/english/providers/program/pubhealth/flu/flu_09/bulletins/flu_bul_01_20091204.pdf

Overall, influenza activity in Ontario is lower compared to the previous week. All of the measures indicate that influenza activity is lower in week 47 to week 46. Starting in week 45 (Nov.8-14) influenza activity in Ontario has declined each week.

MOHLTC Guidance Document for Faith-Based Groups (December 1, 2009)

http://www.health.gov.on.ca/en/ccom/flu/h1n1/pro/docs/faith_guidance.pdf

MOHLTC Planning for Extra-Curricular Activities for School-Aged Children (December 1, 2009)

http://www.health.gov.on.ca/en/ccom/flu/h1n1/pro/docs/extra_school_guidance.pdf

BC CENTER FOR DISEASE CONTROL (BC CDC):

BC CDC: H1N1 flu virus update (December 1, 2009)

<http://www.bccdc.ca/resourcematerials/newsandalerts/healthalerts/2009HealthAlerts/H1N1FluVirusHumanSwineFlu.htm>

Weekly BC Pandemic H1N1 Surveillance Update as of November 28, 2009:

<http://www.bccdc.ca/dis-cond/DiseaseStatsReports/influSurveillanceReports.htm>

WORLD HEALTH ORGANIZATION (WHO)

Global Situation Update 77, December 4, 2009

http://www.who.int/csr/don/2009_12_04/en/index.html

In the northern hemisphere, the early arriving winter influenza season continues to intensify across central Europe and in parts of central, eastern, and southern Asia. Disease activity has peaked and is declining in North America and has either recently peaked or is currently peaking in much of western and northern Europe. In both Canada and the US, influenza virus circulation remains active and geographically widespread, however, disease activity appears to have peaked in past 3 to 4 weeks. In the United States, deaths due to pneumonia and influenza continued to increase past the epidemic threshold for the past 8 weeks and cumulative rates of hospitalizations for the current influenza season have exceeded rates seen in recent seasons among all age groups except those aged ≥ 65 .

Oseltamivir resistance in immunocompromised hospital patients (December 2, 2009)

http://www.who.int/csr/disease/swineflu/notes/briefing_20091202/en/index.html

WHO has been informed of two recent clusters of patients infected with oseltamivir-resistant H1N1 viruses. Transmission of resistant virus from one patient to another is suspected in both outbreaks.

WHO use of advisory bodies in responding to the influenza pandemic (December 3, 2009)

http://www.who.int/csr/disease/swineflu/notes/briefing_20091203/en/index.html

Weekly Epidemiological Record on pandemic (H1N1) 2009 (December 4, 2009)

<http://www.who.int/wer/2009/wer8449/en/index.html>

EUROPEAN CENTRE FOR DISEASE PREVENTION & CONTROL (ECDC)

December 4, 2009: ECDC Daily Update, Pandemic (H1N1) 2009

http://www.ecdc.europa.eu/en/healthtopics/Documents/091204_Influenza_AH1N1_Situation_Report_0900hrs.pdf

Protocol for cluster investigations to measure influenza vaccine effectiveness in the EU/EEA (December 7, 2009)

http://www.ecdc.europa.eu/en/publications/Publications/Forms/ECDC_DispForm.aspx?ID=473

European Medicines Agency publishes first weekly pandemic pharmacovigilance update (December 3, 2009)

<http://www.emea.europa.eu/pdfs/general/direct/pr/77514009en.pdf>

HEALTH/SURVEILLANCE BULLETINS:

Australia

Australia Influenza Surveillance Summary Report, No. 29, 2009, reporting period: November 21-27 2009

<http://www.healthemergency.gov.au/internet/healthemergency/publishing.nsf/Content/ozflucurrent.htm>

Center for Infectious Disease Research and Policy (CIDRAP)

CDC heartened by initial safety reports on H1N1 vaccine (December 4, 2009)

<http://www.cidrap.umn.edu/cidrap/content/influenza/swineflu/news/dec0409safety.html>

Preliminary studies indicate that the pandemic H1N1 vaccine is just as safe as seasonal flu vaccines and is very unlikely to increase the risk of the paralytic condition that derailed the 1976 swine flu vaccination campaign.

John Hopkins finds resistant strain in 2 patients (December 3, 2009)

<http://www.baltimoresun.com/health/swine-flu/bal-md.hs.flu03dec03,0,2277805.story>

Good results reported for VLP H1N1 vaccine (December 2, 2009)

<http://www.prnewswire.com/news-releases/novavax-reports-positive-clinical-results-from-pivotal-study-of-h1n1-influenza-vaccine-in-mexico-78308117.html>

JOURNALS SCANNED:

- American Journal of Public Health
- British Medical Journal
- Canadian Medical Association Journal
- Clinical Infectious Diseases
- Eurosurveillance
- JAMA
- Journal of Clinical Microbiology (added this week)
- Journal of Infectious Diseases
- Lancet
- MMWR
- Nature
- New England Journal of Medicine
- PLoS One
- PLoS Currents
- Science

**** Please note that the hypertext links appended to the citations below may not be available in your institution – contact your library for details on access to the journals.*

AMERICAN JOURNAL OF PUBLIC HEALTH

-Nothing new on H1N1 this week

BRITISH MEDICAL JOURNAL

1) GPs are told to vaccinate all priority groups against swine flu before Christmas (Mark Pownall, November 30, 2009)

http://www.bmj.com/cgi/content/full/339/nov30_1/b5110?utm_source=feedburner&utm

Abstract:

A further nine million doses are with GPs, primary care trusts, and acute trusts ready for use for people in the priority groups and to protect healthcare workers. And another four million doses had been delivered to the UK and were in manufacturers' warehouses awaiting distribution. Professor Salisbury said he expected the vaccination programme to accelerate rapidly as more supplies of vaccine became available. "I would like to see the priority groups vaccinated well before Christmas, so that GPs can move onto the next group: children under 5," he said.

2) Tracey Koehlmoos on fear and swine flu in Bangladesh (Tracey Koehlmoos, November 30, 2009)

<http://blogs.bmj.com/bmj/2009/11/30/tracey-koehlmoos-on-fear-and-swine-flu-in->

Abstract:

Bangladesh, we learnt recently, will receive a small amount of vaccine in early 2010. It will not be enough to immunize everyone at risk. How can we get the vaccine to those who need it most? We prepared a policy brief and newspaper articles in English and Bangla to provide the best evidence from global sources such as the CDC, the WHO, and the NHS discussing which groups should have priority. Because of the low ratio of provider to population the first priority group is

front-line healthcare workers followed by pregnant women, children 6 months to 5 years, adolescents, and lastly adults with high risk conditions such as COPD, asthma, diabetes, liver diseases, etc.

CANADIAN MEDICAL ASSOCIATION JOURNAL

1) Estimated epidemiologic parameters and morbidity associated with pandemic H1N1 influenza (Ashleigh R Tuite, December 3, 2009)

<http://www.cmaj.ca/cgi/rapidpdf/cmaj.091807v1>

Abstract:

We obtained data on laboratory-confirmed cases of pandemic H1N1 influenza reported in the province of Ontario, Canada, with dates of symptom onset between Apr.13 and June 20, 2009. Incubation periods and duration of symptoms were estimated and fit to parametric distributions. We used competing-risk models to estimate risk of hospital admission and case-fatality rates. From these values we estimated a serial interval (the average time from onset of infectiousness in a case to the onset of infectiousness in a person infected by that case) of 4–5 days. The low estimates for *R_o* indicate that effective mitigation strategies may reduce the final epidemic impact of pandemic H1N1 influenza.

2) Rash associated with H1N1 influenza (Morgan Rosenberg, November 30, 2009)

<http://www.cmaj.ca/cgi/rapidpdf/cmaj.091678v1?ijkey=b897311d630b1d39f0253aa2961>

Abstract:

On the fourth day of the patient's illness, he began to cough up yellow sputum, and a pink maculopapular rash appeared over his abdomen. The rash became confluent and spread to most of his body, sparing only his face, palms and soles. Within 48 hours, the rash had resolved completely.

CLINICAL INFECTIOUS DISEASES

-Nothing new on H1N1 this week

EUROSURVEILLANCE

-Nothing new on H1N1 this week

JAMA

-Nothing new on H1N1 this week

JOURNAL OF CLINICAL MICROBIOLOGY (added this week)

1) Switching Gears for an Influenza Pandemic: Validation of a Duplex Reverse Transcriptase PCR Assay for Simultaneous Detection and Confirmatory Identification of Pandemic (H1N1) 2009 Influenza Virus (Jason J. LeBlanc, et al., December 1, 2009)

<http://jcm.asm.org/cgi/content/full/47/12/3805>

Abstract:

Rapid methods for the detection and confirmatory identification of pandemic influenza A virus (also known as pandemic [H1N1] 2009) are of utmost importance. In this study, a conventional reverse transcriptase PCR (RT-PCR) assay for the detection of influenza A virus and the hemagglutinin of swine lineage H1 (swH1) was designed, optimized, and validated. Nucleic acids were extracted from 198 consecutive nasopharyngeal, nasal, or throat swab specimens collected early in the outbreak (127 negative specimens, 66 specimens with pandemic [H1N1] 2009

influenza virus, 3 specimens with seasonal [H1N1] influenza A virus, and 2 specimens with seasonal [H3N2] influenza A virus). The performance characteristics of the duplex RT-PCR assay were assessed and compared to those of various detection methods: a monoplex RT-PCR assay ...[More](#).

2) Seasonal Influenza Virus Species in Patient Swab Samples Analyzed for the Presence of the Pandemic (H1N1) 2009 Influenza Virus (Jens Verheyen, et al.)

<http://jcm.asm.org/cgi/content/full/47/12/4187>

Abstract:

The diagnosis of viral respiratory infections attracts more and more attention either to provide specific antiviral treatment (influenza) or to exclude bacterial infections in order to avoid antibiotic therapies (1). The analysis of a large number of people for influenza virus infections because of the pandemic (H1N1) 2009 influenza virus repeatedly revealed the presence of seasonal influenza viruses beyond the influenza season in Germany. These results are in line with previous findings reporting limited influenza epidemics during the summer (5, 7). Therefore, despite overwhelming interest in the pandemic (H1N1) 2009 influenza virus, seasonal influenza virus should not be neglected in the diagnosis of patients with influenza-like symptoms.

JOURNAL OF INFECTIOUS DISEASES

-Nothing new on H1N1 this week

LANCET

-Nothing new on H1N1 this week

MMWR

-Nothing new on H1N1 this week

NATURE

- Nothing new on H1N1

NEW ENGLAND JOURNAL OF MEDICINE

1) The Emergency Use Authorization of Peramivir for Treatment of 2009 H1N1 Influenza (D. Birnkrant and E. Cox, December 3, 2009)

<http://click2.nejm.org/cts/click?q=137%3B67321132%3BsDyBh1c%2FvHMFxNrHSbu8>

Abstract:

-No abstract available

2) Emergence of Oseltamivir-Resistant Pandemic H1N1 Virus during Prophylaxis (December 3, 2009)

<http://content.nejm.org/cgi/content/full/361/23/2296?query=TOC>

Abstract:

-No abstract available

PLOS ONE

1) Characterization of the Influenza A H5N1 Viruses of the 2008-09 Outbreaks in India Reveals a Third Introduction and Possible Endemicity (Alok K. Chakrabarti, et al., December 1, 2009)

<http://www.plosone.org/article/info:doi/10.1371/journal.pone.0007846>

Abstract:

Widespread infection of highly pathogenic avian influenza A H5N1 was reported from backyard and commercial poultry in West Bengal (WB), an eastern state of India in early 2008. Infection gradually spread to Tripura, Assam and Sikkim, the northeastern states, with 70 outbreaks reported between January 2008 and May 2009. Whole genome sequence analysis of three isolates from WB, one isolate from Tripura along with the analysis of hemagglutinin (HA) and neuraminidase (NA) genes of 17 other isolates was performed during this study. In the HA gene phylogenetic tree, all the 2008-09 Indian isolates belonged to EMA3 sublineage of clade 2.2. The closest phylogenetic relationship was found to be with the 2007-09 isolates from Bangladesh and not with the earlier 2006 and 2007 Indian isolates implying a third introduction into the country. The receptor-binding pocket of HA1 of two isolates from WB showed S221P mutation, one of the markers predicted to be associated with human receptor specificity. Two substitutions E119A (2 isolates of WB) and N294S (2 other isolates of WB) known to confer resistance to NA inhibitors were observed in the active site of neuraminidase. Several additional mutations were observed within the 2008-09 Indian isolates indicating genetic diversification. Overall, the study is indicative of a possible endemicity in the eastern and northeastern parts of the country, demanding active surveillance specifically in view of the critical mutations that have been observed in the influenza A H5N1 viruses.

2) Influenza Morbidity and Mortality in Elderly Patients Receiving Statins: A Cohort Study (Jeffrey C. Kwong, Ping Li, Donald A. Redelmeier, December 1, 2009)

<http://www.plosone.org/article/info:doi/10.1371/journal.pone.0008087;jsessionid=706FF559146B1B053A0D3998E0AB51E4>

Abstract:

Statins possess immunomodulatory properties and have been proposed for reducing morbidity during an influenza pandemic. We sought to evaluate the effect of statins on hospitalizations and deaths related to seasonal influenza outbreaks.

3) Influenza excess mortality from 1950-2000 in tropical Singapore (Vernon J. Lee, et al., December 1, 2009)

<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0008096>

Abstract:

The influenza pandemics of 1957 and 1968 resulted in substantial mortality. In addition, there were 20 other time points with significant excess mortality. Of the 12 periods with significant excess mortality post-1972, only one point (1988) did not correspond to a recorded influenza activity. For the 8 periods with significant excess mortality periods before 1972 excluding the pandemic years, 2 years (1951 and 1953) had newspaper reports of increased pneumonia deaths. Excess mortality could be observed in almost all periods with recorded influenza outbreaks but did not always exceed the 95% confidence limits of the baseline mortality rate.

PLOS CURRENTS

-Nothing new on H1N1 this week

SCIENCE

-Nothing new on H1N1 this week