Risk assessment of the 2015–2016 influenza season in the WHO European Region, week 40/2015 to week 04/2016

Timing of the season

1. The 2015–2016 influenza season in the WHO European Region started around week 51/2015, which is normal compared with previous seasons. However, influenza activity is higher in countries of eastern (Russian Federation and Ukraine) and northern Europe and the Caucasus compared with countries of southern and western Europe, suggesting a different pattern of spread than the west-east spread seen in previous seasons.

2. The early part of the 2015–2016 influenza season was marked by a very high proportion of influenza A(H1N1)pdm09 viruses across most of the Region. The proportion of A(H1N1)pdm09 viruses among all these viruses was higher than during the same period of 4 previous seasons. Among different subregions, 89–97% of subtyped influenza A viruses have been A(H1N1)pdm09 viruses, with the highest proportion reported in eastern Europe. Influenza B was detected most frequently (40%) in western Europe while the highest proportion of A(H3N2) was reported by Turkey.

Virus characteristics and vaccine effectiveness

3. So far there is no evidence that currently circulating influenza A(H1N1)pdm09, influenza A(H3N2) or influenza B viruses have changed antigenically compared with the vaccine virus. This includes analyses on recent viruses from eastern Europe (Ukraine). Whether A(H1N1)pdm09 viruses have acquired mutations that could result in increased virulence or severity of disease is under investigation.

4. Of those influenza B viruses for which the lineage has been determined, the predominant lineage is Victoria which is recommended for inclusion in quadrivalent seasonal influenza vaccines.

5. There is so far no evidence of reduced susceptibility to the neuraminidase inhibitors oseltamivir and zanamivir and currently circulating influenza A(H1N1)pdm09, A(H3N2) and influenza B viruses should be susceptible to both antiviral drugs. All viruses screened for susceptibility to adamantanes were found to be resistant.

Severity and mortality

6. Five countries reporting severe acute respiratory infections (SARI) – Armenia, Georgia, Russian Federation, Serbia and Ukraine – reported collectively a greater number of severe cases than during the same period of the previous season. In four of these countries (Armenia, Georgia, Russian Federation and Ukraine), an earlier and steeper increase in

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1 See the Flu News Europe website (www.flunewseurope.org).
severe cases occurred about 3–6 weeks earlier than the previous season. This early rise in severe cases may have caused heightened concern in the affected countries leading to reports of a more severe season. However, as the season has not peaked yet, it is not possible to say whether the total number of severe cases will exceed those from previous seasons.

7. This season, influenza A(H1N1)pdm09 was associated with severe disease in all age groups. In line with previous findings when A(H1N1)pdm09 is circulating, however, there were more SARI cases, in five countries reporting on them, among those aged 15–64 than in the same period in the previous season, and the majority of cases of laboratory-confirmed influenza in hospitals and intensive care units (ICUs), in six countries for this season, occurred in adults aged 30–64.

8. Information on risk factors such as co-morbidities known to increase the risk of complications from influenza infection is only available from European data for a low number of cases (and was therefore not further analysed).

9. So far this season, data from 18 countries or regions in western, northern and southern Europe reporting excess all-cause mortality on a weekly basis to the European monitoring of excess mortality for public health action project (EuroMOMO) show no indication of an increase in mortality during the influenza season.  

Impact

10. Historically, uptake of seasonal influenza vaccine varies considerably throughout the WHO European Region, being generally lower among the elderly in eastern versus western European countries while throughout the Region, few countries have systems in place to monitor vaccine uptake in main target groups including health care workers, persons with underlying conditions, residents of long term care facilities and pregnant women. Low vaccination rates in risk groups may increase the risk of complications following influenza infection.

WHO recommendations

All Member States are encouraged to conduct surveillance – adhering to standard case definitions and sampling protocols – to share surveillance information for publication in the Flu News Europe bulletin, and to continue sharing viruses with WHO for the timely risk assessment of influenza viruses.

Member States should raise awareness among health care personnel (especially working in emergency- and intensive care units) to suspect influenza in risk groups (pregnant women, individuals >6 months with certain chronic diseases, elderly persons, residents of institutions for older persons and the disabled, and children aged 6–59 months) when influenza is circulating in their area. This season, due to the high proportion of circulating influenza A(H1N1)pdm09, they should be aware that severe disease may more frequently occur in adults.

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3 EuroMOMO (http://www.euromomo.eu/).
Viruses circulating this season are susceptible to the antiviral drugs oseltamivir and zanamivir. Administration of neuraminidase inhibitors within 48 hours of influenza symptom onset is recommended for persons at increased risk and who exhibit progressive disease, without waiting for diagnostic confirmation and irrespective of whether the person has been vaccinated. As all viruses screened for susceptibility to adamantanes were found to be resistant, administration of adamantanes is not recommended.

To better respond during future influenza seasons, Member States are encouraged to strengthen their existing surveillance systems in order to provide timely alerts (early warning) for unusual situations, such as an early start to the season, and take measures to improve them where needed. Existing capacities to respond to an unusual influenza season should also be assessed.

WHO recommends that health care workers and people who are most at risk of developing serious complications from influenza infection be vaccinated every year. Priority groups for vaccination include: pregnant women, individuals >6 months with certain chronic diseases, elderly persons, residents of institutions for older persons and the disabled, children aged 6–59 months, and health care workers. Particularly in countries in which the season has not yet started or peaked, WHO recommends to provide risk groups with seasonal influenza vaccine.

**Communicating with the public**

Influenza A(H1N1), widely known as the cause of the 2009 pandemic, is the predominant flu virus this winter season. As this may alarm the public, it is extremely important to communicate that A(H1N1) is now circulating as a seasonal influenza virus, which is included in this season’s flu vaccine.

Countries should provide the public with information about the current Influenza season as well as advice on the effective public health measures to prevent Influenza transmission. People who are most at risk of developing serious complications from influenza infection (pregnant women, individuals >6 months with certain chronic diseases, elderly persons, residents of institutions for older persons and the disabled, and children aged 6–59 months) and health care workers should be vaccinated every year. Personal measures such as hand washing, cough etiquette and staying home if feeling ill should be recommended.

Even though influenza is usually mild, and most people recover quickly, it is important to emphasize that people who develop any severe respiratory symptoms and do not improve within 72 hours from onset of the illness should consult their physicians. Countries are also encouraged to monitor the public’s perceptions, e.g. rumours in the media, in order to shape and target risk communications accordingly.

Authorities in countries with vulnerable populations and persons displaced due to political crises who may have poorer access to health care should raise awareness among these groups, as well as among health care providers.

**Further information**

For further information, see:

- Risk assessment – seasonal influenza A(H1N1)pdm09, 8 February 2016 (Copenhagen: WHO Regional Office for Europe; 2016 (http://www.who.int/influenza/publications/riskassessment_AH1N1pdm09_201602/en/, accessed 17 February 2016)); and