

ECDC HEALTH INFORMATION

Seasonal influenza epidemics 2010/11 in EU/EEA countries

Briefing for health professionals

26 January 2011

The purpose of this document is to provide information to health professionals concerning the seasonal influenza season 2010/11 across the EU/EEA countries. More detailed information can be found on the ECDC website, on the pages dedicated to the seasonal influenza and especially on the [Influenza Spotlight](#) page.

Key facts

The following facts are all in the public domain, having been published in the [Weekly Influenza Surveillance Overview](#) (WISO) and in a number of other information sources.

- The earliest affected country was the UK, where epidemics started well before the Christmas holidays.
- However, rates of transmission of influenza subsequently rose in most European countries but especially the western parts of the EU (for more information please see the [influenza activity maps](#) on the ECDC website).
- In the UK, and especially in England, the first indication of the epidemics was increased pressure on hospital services, especially higher levels of demand for ITU/ECMO beds in early December. This rose before influenza consultation rates rose in the community.
- So far this season, the viruses are predominantly influenza A(H1N1)2009 and influenza B viruses, with only a few A(H3N2) viruses. This is a different mix from the earlier seasonal influenza (up to 2008). It is reasonable to expect qualitative differences compared with the pre-2009 seasonal influenza.
- There is little difference from the strains contained in this year's seasonal influenza vaccine so that this can be expected to work well in giving protection against infection.
- There is some evidence of antiviral resistance to oseltamivir and this is being followed carefully by WHO and ECDC as well as by individual Member States.
- Respiratory syncytial viruses are also circulating though their reports are now declining in Europe.

Background

- Across Europe influenza epidemics usually progress from west to east [1].
- The character of influenza epidemics can change in the course of a season. However, EU/EEA countries usually have similar experiences within one season unless new strains emerge in the same season, as oseltamivir resistant strains did in 2007/08 [2].
- This 2010/11 season could differ from the usual pattern, due to highly variable use of pandemic vaccines in 2009. For instance, there was notably high population coverage in most Nordic countries (between 40 and 60% in different countries) [3].
- This initial picture in the EU has some similarities with the experience in New Zealand in its 2010 winter [4].
- As in some other influenza seasons, what the EU/EEA countries are experiencing is different from North America and northern Asia (so far dominated by influenza A(H3N2) [5]). But the picture may change; influenza can always surprise.

The experience in the United Kingdom: useful for other countries

The experience in the United Kingdom can give some important indications of what is most likely to occur soon in other EU/EEA countries because it experienced epidemics first and has putting detailed analyses into the public domain on a weekly basis. A similar pattern has been seen in countries like Denmark, France, Ireland and the Netherlands and it is reasonable to expect other countries to be affected in the same way. However, it does not follow that all countries will experience the same volume of cases and pressure on health services. Exceptions may be those countries with a high population coverage with the pandemic vaccine in 2009 (Iceland, Finland, Norway and Sweden).

According to the information provided by the Health Protection Agency [6, 7] and the Department of Health, England [8, 9]ⁱ:

- There has been considerable pressure on intensive care units and extra corporeal membrane oxygenation (ECMO) since early December 2010. Numbers requiring higher level care declined by week 3/2011 but remain considerably above the level seen during the pandemic.
- Community consultation rates crossed the epidemic threshold in weeks 48 and 49, but initially were lower than would be expected from the observed pressure on intensive care units. There is speculation that this may reflect the fact that most people infected with the A(H1N1)2009 virus are experiencing only mild or no illness [10];
- The pattern of severe disease is similar to that observed during the pandemic:
 - most patients affected are under 65 years-old;
 - most, but not all, have risk factors (chronic disease or pregnancy);
 - deaths have occurred in a similar pattern to those during the pandemic [11];
 - among the fatal cases for whom vaccination records were available, very few had received either the 2009 pandemic vaccine or the 2010 seasonal vaccine. This is compatible with the fact that the vaccine is up to 80% effective at protecting against mild infection and indicates it may also prevent deaths.
- Virological analysis of isolates from severely affected cases indicates no observable difference between the virology seen in 2009 and this season's A(H1N1) viruses [12].
- It will be important to monitor for any oseltamivir-resistant viruses as some have been reported in the UK.
- There has been an increase in laboratory reports of some invasive bacterial infections (notably invasive streptococcal disease and pneumococcal disease) though this is not necessarily related to influenza [13].

Actions adopted in the United Kingdomⁱⁱ

Actions adopted or advised in the United Kingdom have included:

- Preparing intensive care and ECMO services to accommodate more cases;
- Further emphasising the importance of seasonal immunisation for risk groups especially, i.e. those with chronic medical conditions and pregnant womenⁱⁱⁱ.
- Advocating use of antivirals for people hospitalised with possible influenza, and for patients seen in primary care who belong to a risk group or that doctors consider would benefit^{iv}.
- Advising doctors to be aware of invasive bacterial disease and treat it early^v.

ⁱ Further regularly updated sources: UK Health Protection Agency Seasonal influenza website [<http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/SeasonalInfluenza>], Department of Health (England) Winter Watch Website [<http://winterwatch.dh.gov.uk>] and *Eurosurveillance* articles [www.eurosurveillance.org].

ⁱⁱ Source: HPA Seasonal Influenza Website for Health Professionals. [<http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/SeasonalInfluenza/InformationForHealthProfessionals>]. Please note that this is for information only and does not necessarily apply in other countries. Health professionals should consult national guidance available in their own country.

ⁱⁱⁱ Seasonal flu vaccine for pregnant women. UK Department of Health; 23 December 2010. [http://www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Dearcolleagueletters/DH_123158]

^{iv} Treatment guidelines for patients with influenza 2010/2011. UK Department of Health; 14 December 2010. [http://www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Dearcolleagueletters/DH_122682]

^v Influenza, meningococcal infection and other bacterial co-infection including pneumococcal and invasive Group A streptococcal Infection (IGAS). UK Department of Health; 10 January 2011. [http://www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Dearcolleagueletters/DH_123646]

Further resources

- [ECDC Seasonal Influenza Spotlight](#)
- [ECDC Forward Look Risk Assessment - October 2010](#)
- [Seasonal levels of influenza vaccination 2008/9 – VENICE Report](#)
- [Interim report of VENICE – ECDC survey of pandemic 2009 vaccine coverage levels](#)

Keep up-to-date

- [Weekly influenza surveillance overview](#) – published every Friday to week 20, 2011
- ECDC RSS Feed for the WISO, available for subscription [here](#) or via the listing of all [ECDC RSS Feeds](#)
- ECDC Influenza Digest – emailed out weekly during the influenza season and then every two weeks at other times of yearⁱ.
- [Influenza section of the Health Protection Agency website](#)
- [WHO web pages on seasonal influenza](#)
- [EuroFlu.org \(WHO Regional Office for Europe\)](#)

Information on clinical care in addition to standing national guidelines

Below you will find a list of links to the WHO or United Kingdom resources. Please note, however, that these links are external to ECDC and the Centre cannot take responsibility for the guidance therein. Readers should check for relevant national guidance in their country of practice.

- [WHO: Clinical Care guidance Series for influenza](#)
- [UK: A summary of guidance for infection control in healthcare settings](#)
- [UK: Royal College of Anaesthetists](#). (please search for *influenza*)
- [UK: Royal College of Obstetricians and Gynaecologists](#)
- [UK Department of Health: Clinical management guidelines for pregnant women with influenza](#)
- [UK: Royal College of Paediatrics and Child Health](#)
- [UK: Faculty of Intensive Care Medicine](#)
- [UK: Intensive Care Society](#): for the update for December 2010, please [click here](#).

ⁱ To receive the Digest, email influenza@ecdc.europa.eu .

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