HSC Public Health Agency

Transmit

Health protection service bulletin

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Foreword

As we approach the 2017/18 flu season, it is timely to reflect on the epidemiology of the flu season last year which is described in our first article. The challenge of prevention requires maintaining and improving the uptake of flu vaccination in the recommended groups. It is important that Healthcare workers receive the flu vaccine every year.

The second article describes the Point Prevalence Survey of HCAIs and Antimicrobial use in Northern Ireland. This survey is a major undertaking and is an essential aspect of the efforts to prevent AMR.

The third article highlights a cluster of Legionnaires' disease among travellers returning from Palma Nova in Spain. At this stage, investigations are ongoing and a source of Legionella has not been established. Colleagues are reminded of the common clinical presentation of Legionnaires' disease and requested to report any confirmed or suspected cases promptly to the PHA Duty Room or Out of Hours on-call Public Health Doctor

Finally, we have provided web links to Public Health Agency surveillance data and recent CMO Letters and Urgent Communications issued by the Department of Health related to health protection.

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Contents

Summary of the 2016/17 Influenza Season

Overall, the 2016/17 influenza season was characterised by low levels of influenza activity in both the community and hospital setting. This season, influenza A (H3) was the predominant circulating strain (61%), followed by a substantial proportion of influenza B (23%) later in the season (Figure 1). The remaining cases were identified as influenza A (untyped) (16%), with a very small number of influenza A (H1N1) pdm09 cases also detected (<1%).

Primary care activity started to increase in late December with ILI rates peaking in early January, slightly earlier than the 2015/16 season (Figure 1). Influenza activity remained low throughout the season and did not cross the 2016/17 MEM baseline threshold. Peak ILI rates were lower than those seen in both the 2015/16 and 2014/15 seasons.

ILI consultation rates were not predominantly seen in any one age group, with rates fluctuating in all age groups throughout the season. The highest level of influenza activity was most frequently seen in the elderly population, peaking at 47.1 per 100,000 in week 2 in those aged 45-64 years and at 46.7 per 100,000 population in week 51 in those aged 65 years and over.

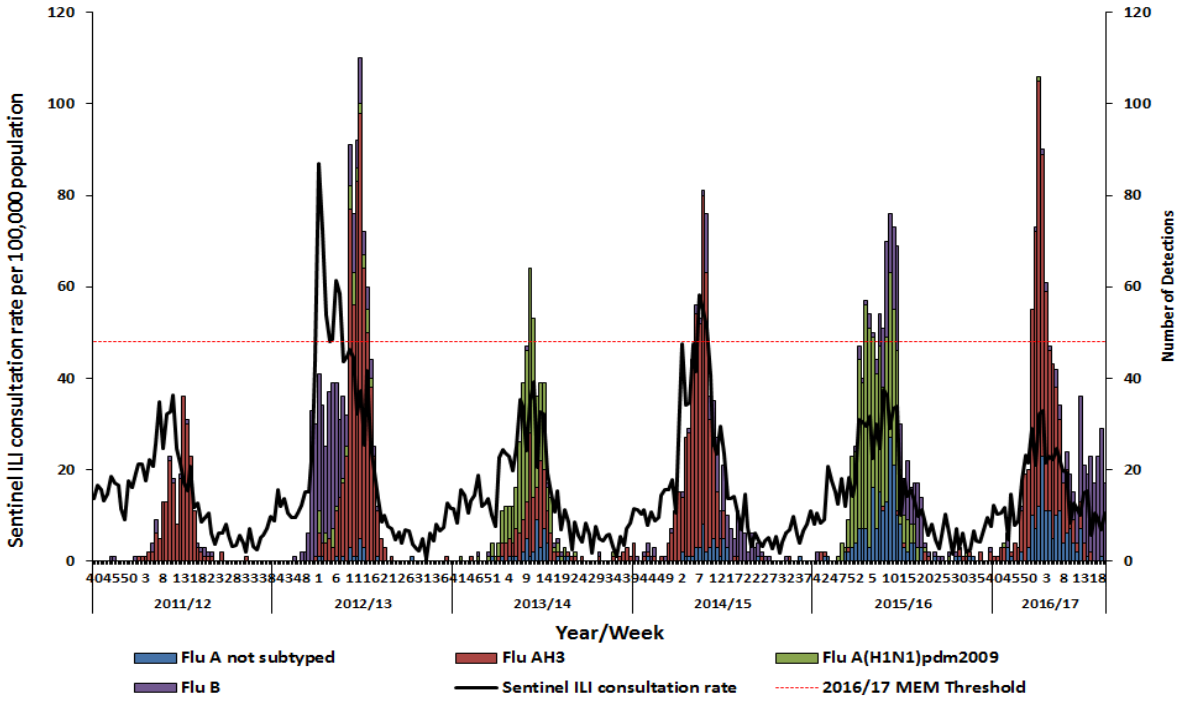

Figure 1: Sentinel GP combined consultation rates for flu/FLI and number of influenza positive detections 2011/12 – 2016/17

Levels of excess all-cause mortality were slightly elevated in the elderly. During the 2016/17 Influenza season excess deaths were reported in seven weeks compared with four weeks in both of the previous two seasons. In 2016/17 the majority of these excess deaths were in those aged 65 years and over.

The number of laboratory confirmed influenza cases in Intensive Care Units/High Dependency Units (ICU/HDU) was lower this season than the previous two seasons at 50 cases compared to 111 and 68 respectively. A total of 11 of these individuals died, giving a higher fatality rate (22%) than the previous two seasons (14% in 2015/16 and 15% in 2014/15).

The proportion of cases with confirmed influenza in ICU/HDU with co-morbidities was also higher (80%) than previous years. Of the 50 cases with confirmed influenza, 41 (82%) were eligible to receive the Influenza vaccine and 20 (49%) of those eligible were vaccinated.

Influenza vaccine uptake in 2016 to 2017 in Northern Ireland was slightly lower in those aged over 65 years (71.9%) and in those under 65 years in a clinical risk group (57.1%) than the 2015 to 2016 season. However, vaccine uptake increased in all the other eligible cohorts with uptake increasing in primary school children (78.3%); in pre-school 2 to 4 year olds (52.6%); in pregnant women (58.6%) and in frontline healthcare workers (29.0%) compared to last season. Influenza vaccination uptake in Northern Ireland continues to be amongst the highest reported in Europe.

During the 2016/17 season there were 7625 respiratory samples tested from all sources (203 from GP sentinel practices; 7422 from non-sentinel sources). Overall, 12% (900/7625) of samples were positive for the influenza virus, a slight reduction compared with 2015/16 when 14% of samples tested positive for the virus (Table 1).

Table 1: Number and proportion of influenza strains to positive influenza samples according to sample source, during week 40 2016 to week 20 2017

	All Sources (n=900)	GP Sentinel Practices (n= 69)	Non-Sentinel Sources (n=831)
Influenza A (H1NI)pdm09	2 (0.2%)	2 (3%)	0 (0%)
Influenza B	206 (23%)	22 (32%)	184 (22%)
Influenza A (H3)	551 (61%)	38 (55%)	513 (62%)
Influenza A (not subtyped)	141 (16%)	7 (10%)	134 (16%)
Total Positive	**12%**	**34%**	**11%**

The number of tests from GP sentinel practices was lower than the previous two seasons and subsequently the overall proportion of positive influenza samples from GP sentinel practices was also lower at 34% (69/203) compared to 43% in 2015/16 and 41% in 2014/15, respectively. The proportion of samples positive for influenza from non-sentinel sources was 11% (831/7422) in 2016/17 compared with 13% in 2015/16 and 11% in 2014/15. There were only two cases of influenza A (H1N1) pdm09 reported this season (Table 1).

This season there were 27 respiratory outbreaks reported, fifteen (56%) of which were influenza positive. This compares with 2015/16 when there were 11 respiratory outbreaks reported of which 7 (64%) were confirmed as influenza. Reflecting the influenza A(H3) virus type that was circulating, which predominantly affects older adults, all the respiratory outbreaks in 2016/17 were in in Care Homes.

For more information on the 2016/17 influenza season please see the Surveillance of Influenza in northern Ireland Annual Report, which can be found here: http://www.publichealth.hscni.net/publications/surveillance-influenza-northern-ireland-2016-17

Influenza Surveillance Team

Point Prevalence Survey (PPS) of Hospital - Acquired Infections and Antimicrobial Use in Northern Ireland

The European Centre for Disease Prevention and Control (ECDC) oversees a Europe-wide hospital point prevalence survey (PPS), which provides a 'snapshot' of a particular issue at a fixed point in time. The PPS is designed to answer two questions:

1. What percentage of patients admitted to European hospitals develop a hospital-acquired infection (HAI)?

2. What percentage of patients admitted to European hospitals receive antimicrobials?

The last PPS was undertaken in 2011 - 2012 and over 1000 hospitals in 30 countries participated; In Northern Ireland all 16 acute hospitals were included and 3,992 patients were surveyed. The tables below show the results of the 2011 - 2012 survey for Europe and the 4 UK countries:

Hospital-acquired infection (HAI) 2011/12

Country	Prevalence %	95% CI
Europe	6.2	6.1 – 6.3
England	6.5	4.8 – 8.8
Scotland	4.9	4.4 – 5.4
Wales	4.3	3.8 – 4.8
N.Ireland	**4.2**	**3.6 – 4.8**

Prevalence of antimicrobial use 2011/12

Country	Prevalence %	95% CI
Europe	36.3	36.1 – 36.5
England	34.3	30.1 – 39.2
Scotland	32.3	30.9 – 33.8
Wales	32.7	31.6 – 33.9
N.Ireland	**29.5**	**28.1 – 30.9**

The 2017 PPS was the fifth national PPS on healthcare-associated infections and the third national survey on antimicrobial use in Northern Ireland. All five Health and Social Care Trusts (HSCTs) participated in the survey which included data collected from each of our 16 acute hospitals again. In total there were 225 healthcare staff trained in data collection and a total of 3,813 patients were surveyed.

Data collection took place during the month of June 2017 in all participating hospitals with data input completed by 21st July 2017. Data was prepared by PHA surveillance colleagues for submission to ECDC (European Centre for Disease Control) in October 2017. It is anticipated that a draft report of the survey will be available by mid December 2017 which will go out for comment. All comments will be considered by 19th January 2018 and the Northern Ireland PPS report will be published at the end of February 2018.

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Increase in cases of Legionnaires' disease in Palma Nova, Mallorca

The Public Health Agency has received reports of an increased incidence in Legionnaires' disease among UK travellers returning from Palma Nova, Mallorca, Spain. Seventeen cases have been identified with onset dates from 11th September, including two people from N. Ireland (to 25th October). Details are still emerging and the PHA is liaising with Health Protection colleagues in Public Health England (PHE) and Health Protection Scotland. The source of infection has not yet been established and PHE are liaising with the relevant authorities in Spain.

Legionnaires' disease is an infection from the local environment and does not pass from person to person.

There are some groups who are at increased risk of Legionnaires' disease, including people:

- aged 50 or over
- with underlying medical conditions (such as diabetes, kidney disease, or a pre-existing lung condition)
- with weakened immune systems (for example, people on certain types of cancer treatment)
- who smoke or have smoked heavily in the past and heavy alcohol drinkers

Once infection starts in the lungs, symptoms may become pneumonia-like, such as a persistent cough. If you do experience symptoms, speak to your GP as soon as possible and inform them of your travel.

Initial symptoms are usually flu-like and include:

- mild headaches
- muscle pain
- high temperature (fever - usually 38C or above)
- chills, tiredness and changes to your mental state, such as confusion

Once infection starts in the lungs, the person may also experience symptoms of pneumonia, such as a persistent cough. This is usually dry at first, but as the infection develops, you may start coughing up phlegm or (in some rare cases) blood, whilst experiencing shortness of breath and chest pains.

It is important that Legionnaires' disease is recognised and treated if travellers returning from the area present with relevant symptoms. Please report any confirmed or suspected cases of Legionnaires' disease to the PHA Duty Room or Out-of-hours Public Health on-call through the usual reporting arrangements.

Further information about the cluster is available on the ECDC, Travax, NaTHNaC and Public Health England links below:

https://ecdc.europa.eu/en/publications-data/communicable-disease-threats-report-8-14-october-2017-week-41

http://www.travax.nhs.uk/outbreaks/outbreak-record-page.aspx?id=22402

https://travelhealthpro.org.uk/news/259/travel-associated-legionnaires-disease-palmanova-area-majorca-spain

www.gov.uk/government/news/increase-in-cases-of-legionnaires-disease-in-palmanova-mallorca

PHA Web Links to Surveillance Data

Surveillance data on the main topics of Public Health interest are available through the following web links:

Notifications of Infectious Diseases:
http://www.publichealth.hscni.net/directorate-public-health/health-protection/notifications-infectious-diseases

Group B Streptococcus:
http://www.publichealth.hscni.net/directorate-public-health/health-protection/group-b-streptococcus

Vaccination coverage:
http://www.publichealthagency.org/directorate-public-health/health-protection/vaccination-coverage

Avian Influenza:
http://www.publichealthagency.org/directorate-public-health/health-protection/avian-influenza

Brucellosis:
http://www.publichealthagency.org/directorate-public-health/health-protection/brucellosis-human

Gastrointestinal infections:
http://www.publichealthagency.org/directorate-public-health/health-protection/gastrointestinal-infections

Hepatitis:
http://www.publichealthagency.org/directorate-public-health/hepatitis

Healthcare Associated Infections:
http://www.publichealthagency.org/directorate-public-health/health-protection/healthcare-associated-infections

Meningococcal disease:
http://www.publichealthagency.org/directorate-public-health/health-protection/meningococcal-disease

Respiratory infections:
http://www.publichealthagency.org/directorate-public-health/health-protection/respiratory-infections

Sexually transmitted infections:
http://www.publichealthagency.org/directorate-public-health/health-protection/sexually-transmitted-infections

Tuberculosis:
http://www.publichealthagency.org/directorate-public-health/health-protection/tuberculosis

Department of Health Web Links

CMO Letters and Urgent Communications relevant to Health Protection, and issued in the three months preceding publication of this edition of Transmit, are accessible through the following web links:

BCG Vaccines
Supply and Ordering
14 July 2017
https://www.health-ni.gov.uk/sites/default/files/publications/health/hss-md-10-2017_0.pdf

Hepatitis B
27 September 2017
https://www.health-ni.gov.uk/sites/default/files/publications/health/hss-md-20-2017.pdf

Seasonal Flu
Management of Seasonal Flu 2017
12 September 2017
https://www.health-ni.gov.uk/sites/default/files/publications/health/hss-md-17-2017.pdf

Flu Vaccination for Staff
6 October 2017
https://www.health-ni.gov.uk/sites/default/files/publications/health/hss-md-22-2017.pdf

Flu Vaccination Programme
4 August 2017
https://www.health-ni.gov.uk/sites/default/files/publications/health/hss-md-14-2017.pdf

Shingles
Vaccination Programme
27 June 2017
https://www.health-ni.gov.uk/sites/default/files/publications/health/hss-md-09-2017.pdf

Vitamin D Intake
11 April 2017
https://www.health-ni.gov.uk/sites/default/files/publications/health/hss-md-05-2017.pdf

We welcome your feedback on the content of Transmit.
Please feel free to contact emma.walker@hscni.net with your suggestions or articles that you would like to see included.