Hospitalizations with influenza during the 2013–2014 Northern Hemisphere influenza season: Preliminary results from the Global Influenza Hospital Surveillance Network

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Introduction

The Global Influenza Hospital Surveillance Network (GIHSN) launched in 2012 to address growing awareness that influenza-related hospitalization is a significant burden that remains insufficiently characterised. The GIHSN is a partnership between industry and public health institutions that use active surveillance and a common core protocol to collect data on the epidemiology of severe influenza. Here we present preliminary results for the 2013–2014 Northern Hemisphere influenza season.

Methods

This was a multi-centre, prospective, active-surveillance, hospital-based epidemiological observational study during the main 2013–2014 influenza season in 19 hospitals of the Northern Hemisphere.

Hospitalized patients of all ages presenting influenza like-illness (ILI) within 7 days between onset of symptoms and admission were swabbed. Positives for influenza were real time reverse transcription polymerase chain reaction (RT-PCR) positive for influenza A(H3N2), A(H1N1)pdm09, or influenza B.

Results

Of 8233 patients screened, 5297 had valid RT-PCR and 1044 (20%) were positive for influenza. Influenza A(H3N2) type (n = 526, 50%) was the most common, followed by A(H1N1)pdm09 (n = 365, 35%) and influenza B/Yamagata lineage (n = 111, 11%).

The influenza A(H3N2) strain caused a mean length of stay at the hospital of 6.34 days [95%CI: 5.92 – 6.77].

Conclusions

Given the virus and vaccine features, it is relevant that geographic representative information on influenza epidemiology, burden of disease and vaccine performance is an on-going monitoring activity performed across consecutive seasons. The preliminary data obtained in the second GIHSN season gives a global overview of the 2013-2014 influenza season in the Northern Hemisphere.