

EPIDEMIOLOGY OF NEW INFLUENZA A (H1N1) VIRUS INFECTION, UNITED KINGDOM, APRIL – JUNE 2009

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Following the previous report to Eurosurveillance on 14 May 2009, the number of confirmed cases of new influenza A(H1N1) has continued to increase in the United Kingdom. By 31 May, UK surveillance activities had detected a total of 252 confirmed cases. Seventy (28%) were related to travel to the United States and Mexico. There is evidence of spread in households, schools and the community with increases in secondary (n=40), tertiary (n=125) and sporadic (n=13) cases. The new influenza A(H1N1) virus infection continues to cause a mild illness predominately affecting younger age-groups with a low rate of hospitalisation.

Since the identification in late April of cases of acute respiratory infection due to a new influenza A (H1N1) virus in the United States and Mexico [1], the same strain has been detected in an increasing number of countries. By 31 May, the World Health Organization (WHO) had reported 15,510 cases in 53 countries.

The first two confirmed cases of new influenza A(H1N1) virus infection in the United Kingdom (UK) were reported in travellers returning from Mexico to Scotland. The UK response and preliminary epidemiological findings have previously been described [2]. This article provides an update to that report.

During the period from 27 April to 31 May, a total of 252 confirmed cases have been detected (Figure 1). Initially cases were reported amongst travellers returning from Mexico, and then from the United States. The first indigenously acquired infections in the UK were reported on 1 May and since then the proportion and number of indigenously acquired cases has steadily increased.

Of the 252 confirmed cases, 118 (47%) are female (Figure 2). Cases range in age from 0 to 73 years, with a mean age of 20 years and median age of 12 years.

Of the 252 cases, 28 reported a history of travel in the seven days before disease onset to Mexico and 42 to the United States. Of the remaining 182, 178 cases reported no recent overseas travel and acquired their infection within the United Kingdom. Of these

FIGURE 1
Cumulative number of laboratory-confirmed new influenza A(H1N1) cases by day of report and travel history, United Kingdom, 31 May 2009 (n=252)

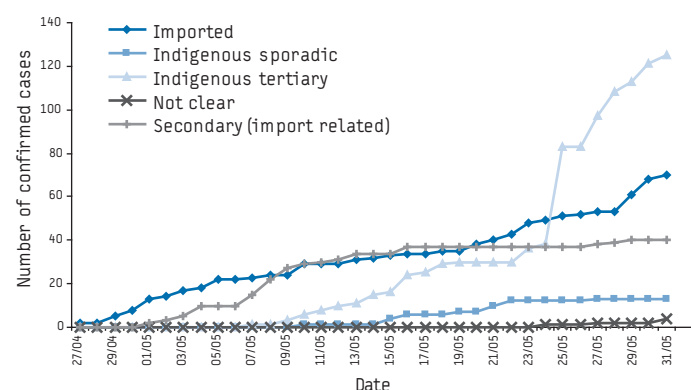
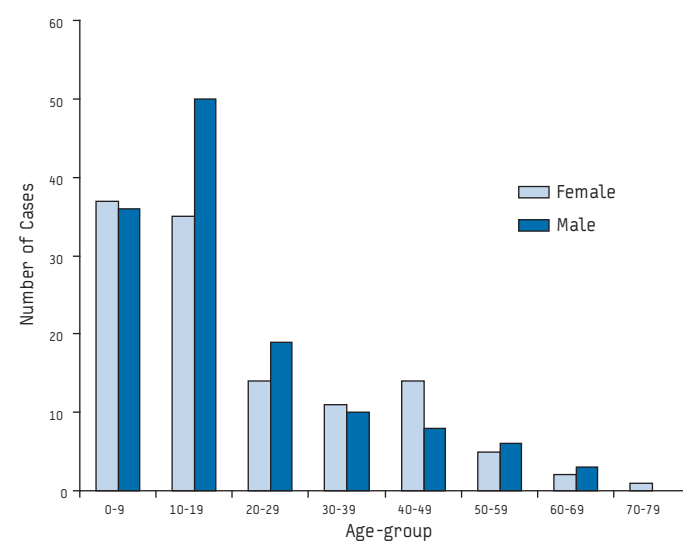


FIGURE 2
Cases of laboratory confirmed new influenza A(H1N1) by age-group and sex, United Kingdom, 31 May 2009 (n=251*)

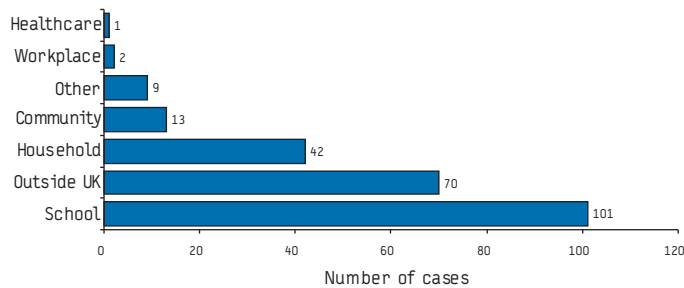


*Age missing for one case.

178 indigenous cases, 40 were secondary (contact within seven days of onset with a travel-associated case); 125 were tertiary

(contact within seven days of onset with a secondary case) and 13 sporadic (no travel or contact with a confirmed case in the seven days before onset). Follow-up is still underway for four cases. Amongst the indigenous cases, infection has been linked to likely transmission in a school setting for 101 cases, a household setting for 42 cases, workplace for two cases and health care setting for one case (Figure 3).

FIGURE 3
Setting/source of acquisition of new influenza A(H1N1) virus infection, United Kingdom, 31 May 2009 (n=238*)

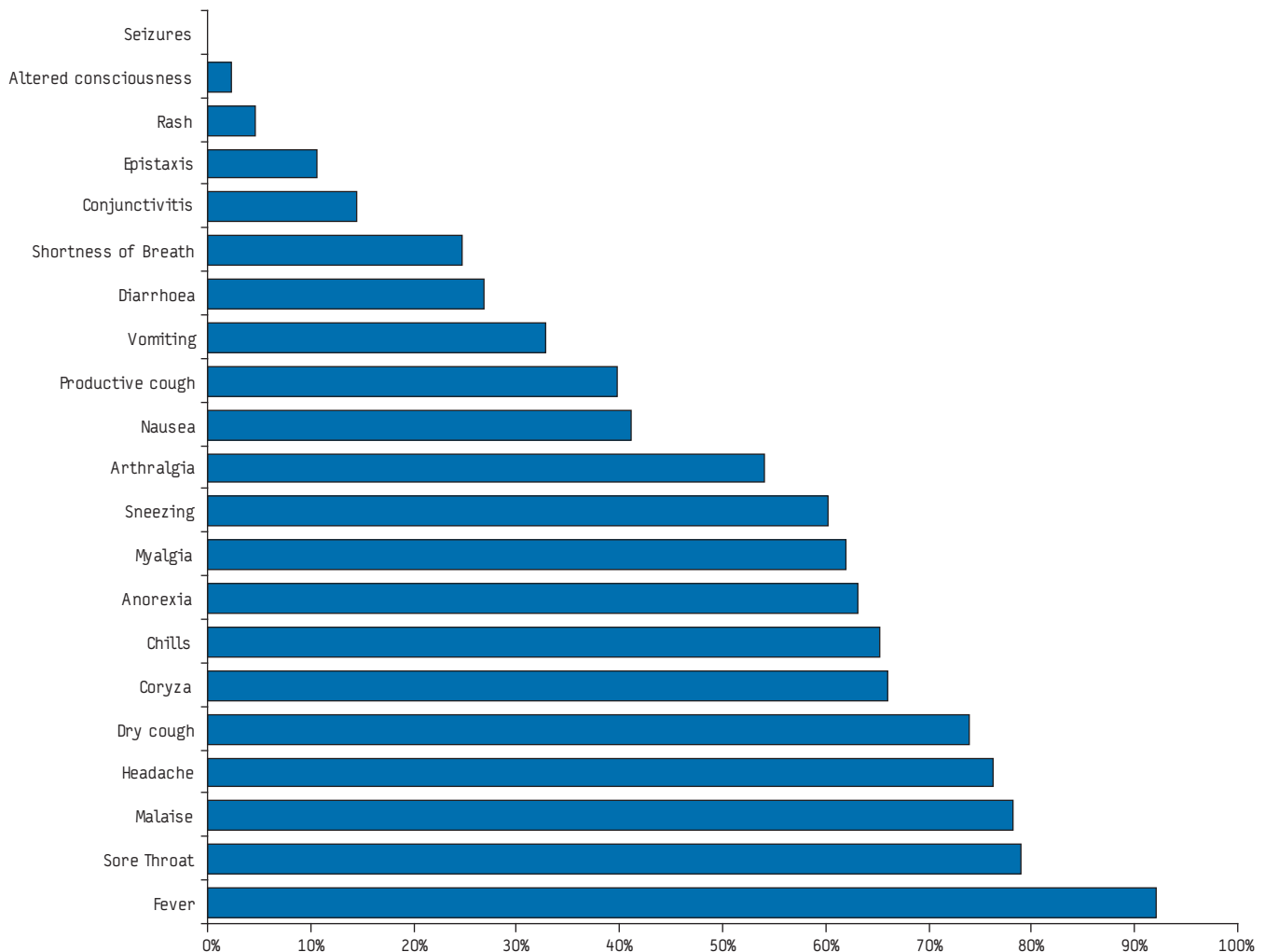


* Investigation is still underway for 14 cases.

The First Few Hundred (FF100) project aims to collect information about a limited number of the earliest laboratory-confirmed cases of new influenza A(H1N1) and their close contacts [3] to gain an early understanding of some of the key clinical, epidemiological, and virological parameters of this infection and to facilitate real time modelling efforts. By 31 May, 175 confirmed cases had been entered into the FF-100 database. Clinical information gathered on these cases shows they continue to present with symptoms typical for influenza (Figure 4).

Up to 31 May, four cases have been hospitalised for clinical reasons. No UK case is known to have died.

FIGURE 4
Clinical presentation of confirmed cases of new influenza A(H1N1) virus infection, United Kingdom, 31 May 2009 (n=175)



HPA and the Health Protection organisations for Scotland, Wales and Northern Ireland have a number of enhanced influenza surveillance systems that are currently operational [4] and that provide an indication of influenza activity in the general population:

- A number of general practitioner (GP) sentinel schemes that collect information on patient consultation rates with influenza-like illness;
- National Health Service (NHS) direct and NHS-24 telephony systems which monitor call rates for colds/flu in the community;
- GP sentinel virological surveillance schemes to monitor circulating respiratory viruses in the community;
- Mortality surveillance based on routine death registration data.

To date, there have not been significant signals of increased influenza activity through these systems, which have established thresholds for widespread circulation of influenza. Outputs from these systems are published on a daily and weekly basis on the HPA website [5]. Further work is on-going to describe more fully the emerging epidemiological, virological and clinical characteristics of this novel influenza virus including in-depth field investigations of individual cluster events in settings such as schools.

References

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