Poor coverage against current influenza B in the UK (and Europe?)

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Public Health England has warned that the trivalent flu vaccine most commonly administered in general practice will not protect against the strain of influenza B that appears to be predominately circulating this year.

In the last week of 2017, there were 24 influenza deaths reported across the UK, with 48 confirmed in the past three months, according to the latest monitoring figures. The overall GP consultation rate for influenza-like illness increased to 21 per 100'000 population, up from 18.9 in the week to 24 December. This is above the normal of 13.1 per 100'000 for this season.

There were also increases in out-of-hours calls for influenza-like illness with rates highest in the 15 to 64 age groups. Data from the sentinel hospital network from 19 NHS trusts across England showed there were 421 hospitalized confirmed influenza cases made up of 179 influenza B cases, 49 A/H1N1, 112 A/H2N2, and 81 influenza A (unknown subtype) cases.

Out of 25 influenza B viruses analyzed by Public Health England’s respiratory virus unit, 21 were the B/Yamagata strain.

This year’s trivalent vaccine does not protect against this strain, whereas the quadrivalent vaccine, including the nasal spray given to children, provides protection against both strains of influenza B virus.

Comment

The weekly influenza update from ECDC states that:

- From sentinel sources, a higher proportion of type B viruses compared to type A viruses has been detected. Of the type A detections, A(H1N1)pdm09 viruses have outnumbered A(H3N2) viruses.

- For type B viruses from both sentinel and non-sentinel sources, B/Yamagata lineage viruses have greatly outnumbered those of the B/Victoria lineage.

- While low in number, 64% of the genetically characterized A(H3N2) viruses belonged to clade 3C.2a, the vaccine virus clade as described in the WHO recommendations for vaccine composition for the northern hemisphere 2017–18, and 36% to clade 3C.2a1, with viruses in both clades being antigenically similar.

- Based on data submitted to the EuroMOMO project there has, over the past weeks, been increased mortality among the elderly, notably in the southwest and the north of the British Isles.

- An early risk assessment based on data from EU/EEA countries was published by ECDC on 20 December 2017. First detections indicated circulation of A(H3N2) and B/Yamagata viruses in the highest proportions. As the A(H3N2) subtype dominated last season, a high proportion of the population should be protected.
Therefore, it seems from the UK data, that influenza B will be prominent this season and that some vaccines, especially the trivalent vaccine, may not provide good coverage against it.

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