Skowronski DM et al 2012-13 influenza vaccine effectiveness PLOS ONE 2014

Table S5. Haemagglutinin (HA) antigenic site differences in circulating A(H1N1)pdm09 viruses relative to the 2012-13 egg-adapted A/California/07/2009 X-179A high growth reassortant vaccine strain

<table>
<thead>
<tr>
<th>Antigenic Site HA1 Position</th>
<th>Cb</th>
<th>Ca2</th>
<th>Sa</th>
<th>Ca1</th>
<th>Sb</th>
<th>Ca1</th>
<th># of AA differences</th>
<th>% AA identity</th>
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<tr>
<td>A/California/07/2009</td>
<td>S</td>
<td>H</td>
<td>A</td>
<td>K</td>
<td>G</td>
<td>S</td>
<td>A</td>
<td>S</td>
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<tr>
<td>A/California/07/2009 X-179A</td>
<td>S</td>
<td>H</td>
<td>A</td>
<td>K</td>
<td>G</td>
<td>S</td>
<td>A</td>
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**British Columbia**

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<tbody>
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**Alberta**

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**Manitoba**

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**Quebec**

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<tbody>
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**Ontario**

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<tbody>
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<td>6B</td>
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<td>T</td>
<td>7</td>
<td>3</td>
<td>94.0%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N=number of sentinel viruses with that sequence. Bold font signifies amino acid (AA) substitution compared with A/California/07/2009 X-179A. Clade designation, number of antigenic site differences and percent antigenic site pairwise identity are also displayed. Antigenic regions comprise 50 AA residues but only the 9/50 positions showing differences between circulating A(H1N1)pdm09 and X-179A are displayed.

a. In September 2013, the European Centre for Disease Prevention and Control (ECDC) further divided clade 6 viruses into three genetic subgroups such that 1/55 (2%), 2/55 (4%) and 52/55 (95%) of sentinel clade 6 A(H1N1)pdm09 viruses during 2012-13 belong to clade 6A, 6B and 6C, respectively [29].

b. A/California/07/2009 X-179A (hereafter “X-179A”) is one of the egg-adapted high growth reassortant vaccine strains substituted by manufacturers for the A/California/07/2009 strain recommended by the World Health Organization as 2012-13 vaccine component. X-181 is an alternate available vaccine strain. Both X-179A and X-181 are identical in their antigenic sites to each other and to A/California/07/2009, with a single non-antigenic site substitution in X-181 (N129D). The number of antigenic site AA differences and percent antigenic site identity are presented here relative to X-179A. Percent identity was derived as per Text S1.

Version: February 11, 2014