**UK Equine influenza outbreaks reported in 2019**

**UPDATE: 5 February 2019**

<table>
<thead>
<tr>
<th>Date</th>
<th>County</th>
<th>Vaccinated?</th>
<th>Diagnosed by</th>
<th>Clade of virus</th>
</tr>
</thead>
<tbody>
<tr>
<td>02/01/19</td>
<td>Essex</td>
<td>No</td>
<td>qPCR on NP swab</td>
<td>FC1</td>
</tr>
<tr>
<td>03/01/19</td>
<td>Cheshire</td>
<td>No</td>
<td>qPCR on NP swab</td>
<td>FC1</td>
</tr>
<tr>
<td>07/01/19</td>
<td>Derbyshire</td>
<td>No</td>
<td>qPCR on NP swab</td>
<td>FC1</td>
</tr>
<tr>
<td>17/01/19</td>
<td>Lincolnshire</td>
<td>No</td>
<td>qPCR on NP swab</td>
<td>FC1</td>
</tr>
<tr>
<td>01/02/19</td>
<td>Yorkshire</td>
<td>No</td>
<td>qPCR on NP swab</td>
<td>Ongoing</td>
</tr>
<tr>
<td>04/02/19</td>
<td>Suffolk</td>
<td>Yes</td>
<td>qPCR on NP swab</td>
<td>Ongoing</td>
</tr>
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<td>04/02/19</td>
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<td>Ongoing</td>
</tr>
</tbody>
</table>

(NP = nasopharyngeal, FC1 = H3N8 Florida sub-lineage clade 1)

**Suffolk**
On 4 February 2019, AHT confirmed two separate outbreaks of EI in Suffolk. One outbreak affected eight vaccinated two-year-old Thoroughbreds that presented with coughing, nasal discharge and pyrexia. The second outbreak affected six unvaccinated non-Thoroughbreds. The positive diagnoses in both outbreaks were confirmed by PCR on nasopharyngeal swabs. Virus isolation and sequencing analysis is currently underway at the AHT and details will be made available soon.

**Yorkshire**
On 1 February 2019, AHT confirmed a case of EI on a premises in Yorkshire. The affected animal is an unvaccinated seven-year-old native Irish breed pony that was imported a few days prior to developing pyrexia, nasal discharge and coughing. The positive diagnosis was confirmed by PCR on a nasopharyngeal swab. The horse has been isolated since arrival. Virus isolation and sequencing analysis is currently underway at the AHT and details will be made available soon.

**Lincolnshire**
On 17 January 2019, Rossdales confirmed a case of EI on a premises in Lincolnshire. The laboratory confirmed positive is an unvaccinated 12-year-old Shetland Pony that presented with coughing and nasal discharge. There are a total of seven unvaccinated in contacts and four of these are also demonstrating clinical signs consistent with EI. The positive diagnosis was confirmed by PCR on a nasal swab. Virus isolation and sequencing analysis is currently underway at the AHT and details will be made available soon.

**Derbyshire**
On 7 January 2019, AHT confirmed a case of EI on a premises in Derbyshire. The affected horse is an unvaccinated 11-year-old Irish Draft that presented with a harsh cough, nasal discharge and pyrexia. The positive diagnosis was made by PCR on a nasopharyngeal swab. There are a total of 14 in contacts, of which 12 are vaccinated. Virus isolation and sequencing analysis has been carried out at the AHT and confirms that the virus belongs to clade 1 of the Florida sub-lineage of H3N8 equine influenza.
Cheshire
On 3 January 2019, AHT confirmed a case of EI on a premises in Cheshire. The affected horse was an unvaccinated six-year-old that presented with coughing, moderately increased respiratory effort, mucoid nasal discharge and pyrexia. There are a total of 10 in contacts. The positive diagnosis was made by PCR on a nasopharyngeal swab. Virus isolation is currently underway at the AHT and preliminary sequencing analysis shows that the virus belongs to clade 1 of the Florida sub-lineage of H3N8 equine influenza.

Essex
On 2 January 2019, AHT confirmed a case of equine influenza (EI) on a premises in Essex. The affected horse was a recently acquired, unvaccinated five-year-old that presented with coughing and mucopurulent nasal discharge. The positive diagnosis was made by PCR on a nasopharyngeal swab. Virus isolation and sequencing analysis has been carried out at the AHT and confirms that the virus belongs to clade 1 of the Florida sub-lineage of H3N8 equine influenza.

Florida clade 1 in the UK
For many years Florida clade 2 (FC2) has been the dominant clade circulating in Europe. It was responsible for the 2003 outbreak in Newmarket, the last major outbreak affecting the UK, and caused sporadic outbreaks across Europe ever since. Florida clade 1 (FC1) however has been less common in Europe. Although the last isolation of FC1 in the UK was February 2018 (from one outbreak affecting two horses that were recently imported from the Netherlands) FC1 had not been detected in the UK since 2009 and in Europe since 2011.

FC1 viruses are typically found in North America and were responsible for several major outbreaks around the world, including in South Africa in 2003, in Japan and Australia in 2007 and in South America in 2012 and again in 2018. So far the origin of the virus that is currently affecting the UK is unknown and no epidemiological link with the ongoing outbreaks in Europe has been made.

Both clades belong to the Florida sub-lineage of the American lineage of H3N8 equine influenza viruses. The Florida sub-lineage emerged in the late 1990s and had diverged into the two clades by 2003 and continue to co-circulate today. Since 2010 the World Organisation for Animal Health (OIE) has recommended that both clades are included in vaccines. FC1 is represented by Ohio/03-like and South Africa/4/03-like strains, whilst FC2 is represented by Richmond/07-like strains.

FLU ALERT!
Please be on the look out for possible cases of equine influenza where clinical signs may be mild and could include coughing, nasal discharge (serous and/or mucopurulent) and pyrexia. Some horses with influenza do not show all these signs and infection can easily be missed. Vaccinated horses can also be affected, although signs are usually milder. Please take nasopharyngeal swab and blood samples from any suspect cases (including vaccinated horses) as well as in-contacts and send them to the Animal Health Trust’s equine influenza surveillance scheme for free testing. UK vets can sign up to the scheme, sponsored by the Horserace Betting Levy Board, at www.equiflunet.org.uk or email us at equiflunet@aht.org.uk. For instant outbreak alerts follow us on twitter @equiflunet.

Your samples help us to monitor influenza activity in the field, but also are critical for us to keep track of how the virus is evolving. Data from your samples, together with those collected from other countries around the world, are used by the OIE to decide whether vaccine strains need to be changed or not. We are also able to offer advice to vets on which samples to take to get a meaningful diagnosis, as well as how to control and minimise the spread of outbreaks.