



APHA Briefing Note 05/17

Assistance with Schmallenberg virus testing

Purpose

1. To inform Official Veterinarians (OVs) of the possibility of assistance with confirming Schmallenberg virus (SBV) in sheep and cattle.

Background

2. The Surveillance Intelligence Unit of the APHA reports: Schmallenberg virus (SBV) was identified in the UK as a new and emerging pathogen of cattle and sheep in 2012, as part of the Europe-wide spread of this midge-borne Orthobunyavirus. Since then, detection of SBV declined in GB as in Europe, and SBV is considered endemic.
3. However, recent reports from mainland Europe during 2016 of recrudescence were followed by reports from GB of congenital deformities in lambs and calves - see the APHA Surveillance report published in the Veterinary Record, (3rd December 2016, Vol. 179;22), which is also available online at: <http://veterinaryrecord.bmj.com/content/179/22/565?ijkey=9BP1tLzrC1kVg&keytype=ref&siteid=bmjournals>.
4. In order to better understand the apparent increase in cases, APHA has encouraged submission of suspect SBV cases (both acute and congenital forms of the disease). It has also provided information on SBV cases in lambs confirmed by APHA in England and Wales during December 2016 and January 2017 on the APHA Vet Gateway website: <http://ahvla.defra.gov.uk/vet-gateway/schmallenberg/index.htm>. This information will be updated to show new cases, by county, on a fortnightly basis.
5. While SBV is not a notifiable disease, to help confirm diagnosis, APHA may offer testing free of charge for suspect cases by prior arrangement with a Veterinary Investigation Officer.

Further Information

Vets at APHA VICs and non-APHA partner PME providers are available to provide further advice. APHA VIC contact details can be found [here](#) or to find your nearest post mortem examination centre use our online [postcode search tool](#).

Regular updates on SBV surveillance can be found on our [Vet Gateway](#), and for updates on APHA disease monitoring please visit [GOV.UK](#).

Suspected congenital SBV in sheep and cattle

Lambs and calves can be born with congenital deformities including arthrogryposis, torticollis, scoliosis, kyphosis, brachygnathia inferior and various malformations of the brain and spinal cord, including hydranencephaly, porencephaly, microcerebellum and thinning of the anterior and thoracic/lumbar spinal cord.

When investigating foetal lesions, colleagues are reminded to remain alert to the possibility of differential diagnoses other than SBV, including for example, the possibility of hydranencephaly induced by *in utero* infection with Bluetongue virus - a notifiable disease. If you suspect a [notifiable disease](#), you must contact APHA immediately.

In cases where lamb and calf malformations are identified and SBV is suspected, APHA is currently offering free SBV PCR tests (test code TC0905) on samples of fresh brain from affected animals. A sample of 1cm³ cerebral cortex or alternatively fresh brain stem is required for the test.

Suspected acute SBV disease in cattle

Acute disease due to SBV was reported in late 2016 in mainland Europe, with clinical signs of milk drop, fever, sometimes with diarrhoea. Diagnosis of potential SBV acute disease involvement is by:

- PCR on EDTA serum taken from cattle within 3 days of the first showing of clinical signs, or
- paired serology with a second serum sample taken 3 weeks after the first (with the same timing of the acute sample as above).

Provided differential diagnoses have been ruled out (as far as possible), a maximum of three animals will be tested free of charge.

Prior arrangement with a Veterinary Investigation Officer is required as careful selection of cases is important.

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