

## Pig Fact Sheet 12

### MENINGITIS

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*Streptococcus suis* is a bacterium that is present in all countries within Western Europe, although it has many different strains (or serotypes) that have a varying ability to cause clinical disease. Serotype 2 is the most commonly isolated strain in the UK, although pure infections are rare.

This is a disease seen mainly in weaned and fattening pigs and clinical disease tends to result following mixing and moving. The bacteria infect pigs at or shortly after birth from maternal vaginal secretions, skin or tonsils. The organism moves into the piglet's tonsils where it multiplies and enters the blood stream. It can cause septicaemia within a few hours, which may kill the animal directly, or alternatively move to the brain, joints or other areas to produce local lesions. Therefore, the consequences vary from sudden death, fever, nervous signs or, in younger pigs especially, arthritis.

The incubation period of the organism varies from 24 hours to 2 weeks or even more. The first sign may be the death of a pig in good body condition. Nervous signs such as incoordination, tremor, paralysis or paddling may be seen before death. Without treatment death generally occurs within 4 hours of onset of signs, although some do not die. Earlier signs such as glassy stare, flushed skin or head tilt may be evident. Humane slaughter may be necessary in severely affected animals.



Disease may occur at any age in susceptible herds but is most common at 3-12 weeks of age. Mortality can vary from 1-50% in any batch. Affected pigs should be treated and their condition assessed after 3 days treatment and nursing. Those unable to stand / feed should be humanely destroyed.

The diagnosis of this condition is based on clinical signs and post mortem examination. Smears and swabs of various tissues can be taken for analysis. Samples can also be taken from live animals e.g. tonsil swabs for culture of the bacteria.

Penicillin based antibiotics are the drugs of choice when treating a single animal suffering from an acute case. Affected animals should be removed to a quiet pen and given oral and/or rectal water. They should be kept cool and dry. Steroids may be used in conjunction with the antibiotic to help to reduce the brain swelling and alleviate pain.

Control of the disease on an affected unit involves a combination of management changes, medication and in some cases vaccination.

Overcrowding, poor ventilation, mixing and moving have all been shown to be predisposing factors. There tends to be an increase in clinical disease in autumn and winter due to large fluctuations (greater than 4°C) in temperature. Continuous production systems tend to be worse affected and strict batch management can help to reduce incidence greatly.

Strategic medication can be used during high-risk periods on affected units to help prevent clinical disease. This can be either through feed (e.g. Potencil) or water (e.g. Amoxinsol), or through the use of long acting antibiotic (e.g. Naxcel) given before weaning in order to cover the piglets throughout the danger period.

A vaccine is available in Europe that protects animals against *Streptococcus suis* type 2 infection. This has not yet been licensed in the UK. However, it is possible to obtain a special import certificate on a unit-by-unit basis. Larkmead is currently trialling this vaccine and initial results have been good. If you think that this may be relevant to your unit, please contact us at Larkmead Veterinary Group.