

Erysipelas

Erysipelas is caused by a bacterium called *Erysipelothrix rhusiopathiae* and can affect stock 6 weeks of age and older.

Infection is transmitted between pigs by contact with infected saliva, urine, faeces and also nasal discharges. Birds and small mammals can act as a reservoir of infection.

Erysipelas survives for a long period of time in the environment, surviving in soil or muck for 6 months or longer. It is also relatively resistant to drying and this can make environmental control difficult.

Clinical Signs

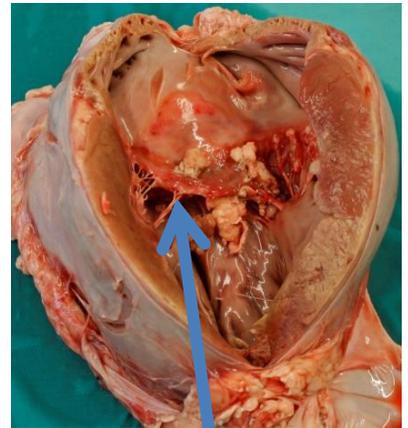
There are different forms of clinical signs seen with this disease.

In the acute, very sudden onset of Erysipelas, affected pigs have a high temperature and decreased appetite. They can be dull and may be reluctant to move. The pig's skin and/or ears may show red to dark purple patches and death usually follows 12-48 hours later.

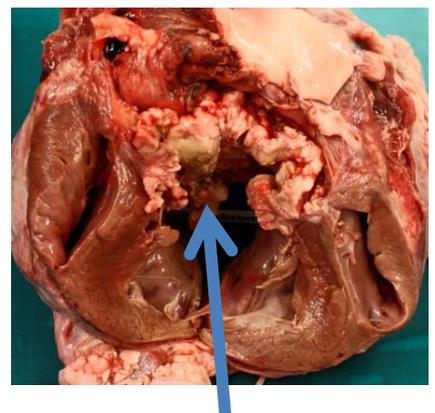
The skin can have raised areas that are warm to the touch, and it is these that go on to develop into the classic 'diamond' skin lesions. They usually appear 24-48 hours after onset of clinical signs and are more easily seen on white pigs.

As infection with Erysipelas causes an increased temperature, affected sows can abort. Boars can become sub-fertile for up to 6-8 weeks as a high body temperature will damage the sperm that are undergoing development at that time, and to produce healthy viable sperm again can take 6-8 weeks.

Infection with Erysipelas can also result in chronic long term disease. Erysipelas can cause inflammation of the valves in the heart (endocarditis) that ensure blood flow through the heart is in one direction and is most efficient. Inflammation of the heart valves changes the thin valve tissue to a much more thickened cauliflower lesion. When this is extreme, sudden death can result as the pig goes into congestive heart failure. Prior to death, the pig can appear to have pneumonia due to the fluid build up on the lungs as the heart malfunctions.



Inside of the heart showing some areas of normal thin heart valve tissue with some lesions.



Inside of the heart with chronic cauliflower-like lesions

Erysipelas bacteria can also be found in the joints that leads to arthritis, and this should always be considered as a cause of lameness in finishing pigs. Lameness or stiffness may be seen on farm and your abattoir may report increased numbers of joint condemnations.

Treatment

Erysipelas can be treated effectively in the acute sudden stage of the disease. It is very sensitive to penicillin based antibiotics and these can either be administered through individual injection, group water or feed depending on the clinical situation on farm. Chronic lesions in the heart or in the joints however, are less likely to respond to antibiotics.

A full course of treatment should always be completed. An incomplete treatment course with penicillin can reduce the pig's temperature so that its appetite returns, but the pig can go on to show clinical signs again or become a chronic case of Erysipelas.

Erysipelas is a zoonotic bacterium, meaning it can infect humans as well. Infection causes an 'Erysipeloid', which is a swelling of the skin. To reduce the risk of human infection from infected carcasses in the slaughterhouse, it is a legal requirement that pigs showing clinical signs of acute Erysipelas infection with a fever cannot be sent to slaughter.

Vaccination

To reduce potential fertility problems in the adult herd, it is recommended to vaccinate breeding stock. Animals are susceptible to disease from 6 weeks of age and gilts should complete their primary course prior to their first service, usually as 2 separate injections. To maintain good immunity, they should then receive a booster every 6 months. Remember your boars, who also need a full primary course and booster vaccinations every 6 months.

Dependent on the clinical picture on your farm, it may be advisable to vaccinate weaners or growers – your vet will be able to advise you on this.

Please speak to your Vet to discuss any questions about your Erysipelas control programme

