

Pleuropneumonia in pigs

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Animal Biosecurity & Welfare

Introduction

Pleuropneumonia is an economically significant respiratory disease that can affect pigs of all ages, but primarily affects weaners, growers and finishers. The disease is caused by the bacterium *Actinobacillus pleuropneumoniae* (APP).

The main route of spread is aerosol by direct contact from pig to pig or by airborne droplets travelling short distances.

The disease can be divided into three forms – peracute, acute and chronic.

Clinical signs

In the peracute form, pigs die within 24-36 hours of showing clinical signs. Pigs will 'dog-sit' with obvious breathing difficulties. Pigs stop eating, develop a fever, and show a bloodstained frothy discharge from the nose and mouth. Infected pigs are reluctant to move and, if forced to do so, will collapse. Many peracute cases are found as sudden deaths.

In the acute form, the onset of clinical signs is less rapid. Symptoms include lethargy, loss of appetite and difficulty breathing with some coughing. Pigs may take a few days to die, some will appear to recover completely, and others will become ill thrifty, chronic cases with permanent lung damage.

In the chronic form, pigs survive acute disease, but they maintain a permanent cough and grow slowly.

Predisposing factors

Disease outbreaks can be due to infection entering a 'naïve' herd with spectacular results. Outbreaks can also occur in herds where subclinical infection is present. In the latter scenario, there are usually stress factors that act as the trigger for a disease outbreak.

Stressors include overstocking, concurrent disease, large temperature fluctuations and poor ventilation.

As a general rule, large herds that mix pigs frequently are more at risk than small herds or herds with different production sites.

Diagnosis

APP pleuropneumonia may be suspected if the clinical presentation is coughing with high mortality in growing pigs. In such cases, the presence of characteristic lung lesions with pleurisy at post-mortem examination enhances suspicion, which can be confirmed by laboratory submission of lung samples.

Submission of samples to a diagnostic laboratory also enables serotype identification and antibiotic sensitivity testing on APP isolates.

Pig lung showing an area of haemorrhagic pneumonia and early pleurisy associated with acute APP infection



Treatment

The most appropriate treatment protocol will vary from herd to herd so discuss with your veterinarian.

Antibiotic therapy is only effective in clinically affected pigs in the early stages of the disease when it can reduce mortality.

Injection is the best option for sick pigs. Water medication is appropriate for treating a group of pigs that are still drinking. Feed medication is only suitable if pigs have a normal food and water intake. Administration of an anti-inflammatory medication can be beneficial to reduce fever and get pigs eating and drinking again.

Note: APP can develop antibiotic resistance and antibiotic therapy does not eliminate infection in a herd. Chronic infections in lung abscesses or tonsils of carrier pigs persist to form an important source of infection for other pigs.

Control

Control programs for APP need to be tailored for individual herds in consultation with your veterinarian.

General principles to follow include:

- purchase pigs from one source with a similar health status
- good ventilation in pig accommodation
- no mixing of pigs post-weaning
- no overstocking pigs
- prevent draughts in pig accommodation
- herd health plan

Review management practices to reduce stress factors. Adoption of all-in-all-out production sites can effectively minimise disease outbreaks.

Vaccines

Killed and live APP vaccines are available in Australia.

Autogenous (herd-specific) killed vaccines can be produced once the serotypes in a herd have been identified.

Further information can be found at <https://portal.apvma.gov.au/pubcris>.

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