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TITLE

CLINICAL OUTBREAKS OF KLEBSIELLA PNEUMONIAE SUBSPECIES PNEUMONIA IN THE NETHERLANDS

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CONTENT

Klebsiella pneumoniae subspecies pneumonia (Kpp) outbreaks, causing septicemia in neonatal piglets, have previously been reported in England and Australia. In the Netherlands, the first Kpp outbreak, with comparable clinical findings, was confirmed by laboratory diagnosis in March 2015.

Kpp outbreaks in 14 farms in the Netherlands have been reported to GD Animal Health from 2015-2018.

Clinical signs mainly consisted of acute death in well grown piglets from 8-21 days of age. Mortality was variable, ranging from 1-2 piglets to 90% of the piglets in a litter. Generally, 5-10% mortality related to Kpp was reported. Different antimicrobial treatments have been applied with variable results. In most cases, the clinical signs decreased, or completely stopped, within a few weeks. At necropsy, fibrin in the body cavities and petechiae on the intestinal wall were the most common findings. Septicemia was confirmed by culture of the spleen. In several cases, Kpp was isolated from joints affected with purulent arthritis.

All outbreaks occurred in indoor farms, varying in size between 250-1700 sows, located in the Southern part of the Netherlands. Most cases were reported between March and October, but outbreaks have also been reported in February and November. Until now, no clear on-farm risk factors were identified; outbreaks occurred in farms feeding fermented, liquid feed or dry feed and no relation with specific bedding material or treatments in the sows or piglets could be detected.

Next to the isolation of Kpp in case of outbreaks in pre-weaned piglets, Kpp has been isolated from several weaned to adult pigs sent in for necropsy at GD Animal Health with other clinical signs.

The characteristics of Kpp outbreaks in the Netherlands resemble previously reported outbreaks in different countries, although the affected farms in the Netherlands, as opposed to most affected farms in England, are all indoor farms.