



Porcine Epidemic Diarrhoea is a notifiable disease



Porcine Epidemic Diarrhoea (PED) is now a notifiable disease in England, although with significant differences from other notifiable diseases of pigs

What does it mean that Porcine Epidemic Diarrhoea (PED) is notifiable?

The two requirements of the legislation for PED as a notifiable disease are:

- Pig keepers and veterinary surgeons must report suspect or confirmed cases of PED in pigs in England to APHA
- APHA is permitted to share identifying details of suspect and confirmed PED cases for disease control purposes with the industry levy board (ADHB Pork).

Unlike other notifiable diseases, there is no legislative requirement for official testing, culling, movement controls or other restrictions and control of disease will be industry-led. Details of the industry Contingency Plan for the Control and Elimination of Porcine Epidemic Diarrhoea are on this link: <https://pork.ahdb.org.uk/media/273229/contingency-plan-ped-22-aug-2016.pdf>

The main reason for making PED notifiable is to enable industry to assist affected premises and those at risk as soon as possible after disease is identified to control disease and limit the spread of infection, and so increase the likelihood of eliminating the disease. Virulent PED represents an emerging threat to pig health and welfare and to food security by affecting pork production. It does not affect humans or have any food safety implications, and other livestock species are not affected.

What role can a pig keeper and their vets play?

Pig keepers and their veterinary surgeons play an important role in preventing PED outbreaks, detecting suspect signs and controlling spread if outbreaks should occur by:

- Taking measures now to minimise the risk of diseases being introduced to their premises and pigs – PED is an exotic risk but there are endemic pathogens that they should also take measures to keep out and safeguard the health of their pigs, notably, swine dysentery and porcine reproductive and respiratory virus. There is advice on biosecurity: <http://pork.ahdb.org.uk/pig-production/biosecurity/> and some targeted at smallholder herds: : <http://pork.ahdb.org.uk/pig-production/smallholders/>
- Making sure that they are familiar with the clinical signs of PED, the key features of which are:
 - *Diarrhoea **spreads rapidly** in a group of pigs over a few days*
 - ***High proportion** of pigs in a group develop diarrhoea (50% and more)*
 - ***High mortality** (30-100%) in young sucking piglets if due to a **virulent strain***
 - *Disease can affect **any age of pig***
 - *The diarrhoea tends to be **watery***
 - *Diarrhoea in **older pigs is transient** and they recover*
 - *Sometimes pigs also show reduced appetite and lethargy and may vomit*

- If an outbreak of PED is suspected, the pig keeper or their vet is now legally obliged to report this to APHA on the Defra Rural Services Helpline on 03000 200 301. There is guidance on reporting PED on GOV.UK and the AHDB Pork website:
 - <https://www.gov.uk/guidance/porcine-epidemic-diarrhoea-how-to-spot-and-report-the-disease>
 - <https://pork.ahdb.org.uk/health-welfare/health/emerging-diseases/pedv/>
- After reporting disease, it is important to promptly progress PED testing of faecal samples from pigs with diarrhoea on suspect premises so that disease can be confirmed or ruled out. Guidance on sampling suspect PED outbreaks and testing is provided on the AHDB website: <https://pork.ahdb.org.uk/health-welfare/health/emerging-diseases/pedv/>. It is estimated that test results for suspect cases will take two working days from receipt of samples at APHA Weybridge. Testing samples from reported suspect PED cases in England is currently performed at APHA without charge to the submitting veterinary practitioner.
- While waiting for results, it is essential that pig keepers promptly implement strict biosecurity measures to prevent spread of infection from the premises – advice on control, the PED contingency plan and protocols are found via this link <http://pork.ahdb.org.uk/health-welfare/health/emerging-diseases/pedv/>. Pig keepers of affected premises and their veterinary surgeons are urged to contact the AHDB Pork Disease Control Team at pighealth@bpex.ahdb.org.uk at the earliest opportunity to obtain assistance in controlling the impact of disease and spread of infection.

What is Porcine Epidemic Diarrhoea?

Porcine epidemic diarrhoea (PED) is a coronavirus that infects the cells lining the small intestine of pigs, causing severe diarrhoea and dehydration. A virulent form of PEDV emerged in North America from May 2013 causing epidemic outbreaks of diarrhoea with high mortality in young piglets. In the US, there was an estimated 7-8% shortfall in pigs for slaughter and more than seven million piglet deaths in the US by early 2015. Infection is believed to have entered the US pig herd from Asia where virulent strains have also spread in recent years, although the exact route of introduction to the US remains uncertain. PED has not been diagnosed in GB since 2002 but strains of PED have been causing outbreaks in several European Union member states since 2014, though to date, the virulent strain has only been identified in the Ukraine in Europe.

How is Porcine Epidemic Diarrhoea spread?

Contact with infected pigs or anything contaminated with their faeces and faeco-oral transmission is the route of spread, with pig transport vehicles significantly implicated in the spread of PED after its introduction to North America. Experience there has shown that implementing stringent biosecurity measures, detecting clinical outbreaks promptly and maintaining good communication and cooperation between the various industry, veterinary, government and laboratory partners are key to controlling spread of infection.

Testing for Porcine Epidemic Diarrhoea

APHA provides diagnostic PCR testing for PED and samples submitted from suspect PED cases will be tested rapidly as indicated above. As additional surveillance, non-suspect cases of diarrhoea in pigs from which samples are submitted to APHA veterinary investigation centre laboratories for diagnostic testing for other causes of diarrhoea, are tested for PED on a weekly basis. This testing is funded by AHDB Pork and over 700 of these have tested negative for PED since 2013. This gives added assurance that PED outbreaks are not being missed, especially as diarrhoea is a common sign in pigs, although PED outbreaks have some distinctive features as outlined above. At present, this PED testing is performed without charge to the submitting vet or pig keeper and the testing is funded by AHDB Pork.