

Porcine Epidemic Diarrhea: Questions and answers

1. What is Porcine Epidemic Diarrhoea?

Porcine Epidemic Diarrhoea (PED) is caused by a coronavirus that leads to severe gastrointestinal disease in pigs. PED is highly infectious and easily spread on fomites (any object or substance capable of carrying infectious organisms such as germs or parasites) but its spread can be controlled through scrupulous biosecurity measures. Infection spreads rapidly through a group or herd of pigs after the virus is introduced. Herds subsequently develop natural immunity, the duration of which is unknown at present. The original disease and PED virus were described in Europe, including the UK, in the 1970s.

2. If PED has been in the UK since the 1970s why does Government want to intervene now?

In 2012 a new highly pathogenic strain (“China/USA 2012”) of PED, causing a virulent form of PED (PEDv), was identified in China. This strain causes death in 80-100 percent of infected suckling piglets in naïve herds (i.e. herds not previously exposed to the virus). Infected older pigs do not generally die but the virus will affect growth rates and reproductive performance, therefore significantly impacting on herd productivity, health and welfare.

PEDv due to this new strain was first confirmed in the USA in May 2013 and has now been detected in 33 states with a loss of more than 10% of their National herd. The disease has spread across North America, into Canada and some South American countries, and is also widespread in Asia. More recently it was detected in the Ukraine bringing the threat much closer to home; the source of the virus in the Ukraine is still unknown.

Although there are no reports of this particular PEDv virus strain in the European Union, including the UK, there are other strains (e.g. “Ohio 851”) of PEDv circulating within the EU that also cause disease in all ages of pig and, in some breeding herds, piglet mortality. It is therefore important that our control measures for PED include all virus strains causing clinical disease. The pig industry has encouraged Defra to seize the opportunity to reduce the likelihood of new PEDv strains becoming endemic in the national herd by making it a legal requirement to notify the Animal and Plant Health Agency of disease symptoms meeting an agreed PEDv case definition. This would enable the pig industry to take prompt action to manage any PEDv outbreak more effectively.

3. Does PEDv present any risks to human health?

No. PEDv is not a zoonotic disease (i.e. a disease that is transmissible between humans and animals).

4. What action has Government taken so far?

Since May 2014 Defra has led the informal PED Core Group comprising representatives from AHDB Pork (formerly BPEX), the National Pig Association (NPA), the British Pig Association (BPA), the British Meat Processors Association (BMPA), the Pig Veterinary Society (PVS), NFU Scotland and (since December) Quality Meat Scotland (QMS) to discuss how to deal with this disease in the most effective way. The Group's objectives have been to:

- Identify ways in which PEDv and other viruses can be prevented from being introduced into both the UK and EU pig population;
- Identify any incidents of UK pig herds being exposed to PEDv at the earliest possible stage;
- Carry out contingency planning so that, should disease incursion occur, activities to control the spread of the virus(es) can be put in place.

Defra has also taken action with industry to reduce the risk of disease incursion into the UK. Together, they have identified the risk pathways for entry to GB from an infected third country and prepared various risk assessments. Defra has developed a live pig protocol for imports originating in PEDv affected areas and supported BPEX-funded surveillance to assess the level of antibody protection in the UK herd against the European strain of PED. On the behalf of the UK Government, Defra has used risk assessments and intelligence information to influence the Commission and other Member States' actions. This has resulted in additional import requirements being put in place for non-EU origin plasma or blood products destined for feed, and on affected third countries live pigs exports to the EU, further reducing disease entry risk.

5. How does Government propose to intervene?

Experience from Canada, where there was a legal requirement to report "new and emerging diseases" (including PEDv) before the first outbreak of the disease occurred, has shown that early identification of initial cases of disease suspicion or confirmation is a key part in slowing the spread of the disease to other units, thereby reducing the impact of PEDv on the wider industry.

By contrast, in the USA there was no legal requirement for disease outbreaks to be reported before the identification of the first case. The number of cases rose rapidly,

and disease spread from coast to coast. Subsequently the United States Department of Agriculture developed a streamlined reporting process and implemented orders requiring new cases of the disease to be reported.

Therefore, Defra is proposing to support industry surveillance activity by introducing a legal requirement in England for pig keepers and others (e.g. veterinarians) who come into contact with pigs and laboratories carrying out testing of PEDv to report the suspicion or confirmation of the disease to Defra's Animal and Plant Health Agency and to supply the associated location and contact details. Defra would facilitate this by providing a case definition of PEDv to be reported i.e. that caused by virulent strains.

6. What role would AHDB Pork play after notification of PEDv?

After notification of suspect or confirmed PEDv on a pig unit in England, APHA would communicate these details promptly to AHDB Pork who would use its staff and infrastructure to provide advice and financial support from a "fighting fund" to help reduce the spread of PEDv where disease was confirmed. AHDB Pork would contact the affected farm on a voluntary basis to offer assistance to the operators and their veterinary surgeons in managing the outbreak and to help prevent onward spread of the virus to other farms. It is intended that AHDB Pork would also contact pig keepers within 3 km of the outbreak site (if confirmed as PEDv positive) and to offer advice on biosecurity and testing for PEDv. AHDB Pork would also support the wider industry through managing arrangements for the affected farm with feed or other supplies and arrangements for stock movement without compromising biosecurity or putting other units at risk.

7. What is AHDB Pork and why has it chosen to provide follow-up support?

AHDB Pork (formerly the British Pig Executive) is a division of the Agriculture and Horticulture Development Board (AHDB). The organisation is focused on enhancing the competitiveness, efficiency and profitability of pig levy payers in England and driving demand for Red Tractor pork and pig meat products in Britain and globally. AHDB Pork identifies PEDv as a threat to the industry's profitability in its 2014-2018 strategy "Going for Growth". With its existing network of biosecurity advisors and infrastructure it is well placed to take swift action to control the spread of disease and thereby help mitigate costs to industry. During informal consultations involving the NPA, BPA, BMPA, PVS, NFUS and QMS, industry agreed that AHDB Pork was best placed to lead this role for all pig producers. To this end AHDB Pork has already developed a contingency plan with support from the aforementioned industry bodies to control the spread of PEDv following incursion of the disease at a national level. In addition, the NPA <http://www.npa-uk.org.uk/index.html> represents the interests of larger British commercial pig producers and the BPA

<http://www.britishpigs.org.uk/about.htm> looks after the interests of pedigree breeders.

8. What is likely to happen to the farm if someone does report?

When the farmer or vet contacts the APHA about a suspected PEDv outbreak that meets the agreed case definition they will be asked to submit samples for diagnostic testing. AHDB Pork would then work with the farmer and their vet to make preparations should PEDv be confirmed and thereafter to manage any disease outbreak, prevent spread and return to normal as fast as possible. This would necessitate working with other farms in the supply chain e.g. feed companies, slaughterhouses and other allied industry partners who may contribute to spread of disease as described in the PEDv contingency plan.

9. Shouldn't Government, rather than industry, lead activities to stamp out PEDv if an outbreak occurs?

During discussions of the Defra-led PED Core Group, it was agreed that PEDv outbreaks would be more effectively controlled if industry took the lead. The contingency plan that AHDB Pork has drafted emphasizes that the best way to effectively manage any PEDv incursion is via an industry led approach, with all elements of the pig sector working collaboratively and coherently together. Whilst AHDB Pork are leading on the contingency plan, the Pig Health and Welfare Council, with a wider membership of stakeholders is leading on bringing all discussions and work on PEDv to a central forum.

10. Why is Defra recommending that PEDv be made notifiable? Other production animal diseases have been managed and/or eliminated by voluntary industry action without putting in place legislation.

It is correct that some diseases have been managed by industry using a voluntary approach. However each disease is different and should be managed in the most appropriate way. PEDv has been shown to be highly infectious and easily spread so it is imperative that all pig producers actively engage and report any sign of the disease promptly. In the United States the initial outbreaks were addressed using a voluntary approach which failed to prevent extensive disease spread and subsequently a mandatory approach was instigated. In Canada, which had legislation requiring "new and emerging diseases" to be notified to Government authorities as soon as suspicion arose, PEDv spread was slower, less extensive and more readily controlled.

11. How is PEDv dealt with in the rest of the UK?

Policy on disease notification is a devolved issue that the Devolved Administrations (DAs) for Wales, Scotland and Northern Ireland decide independently in respect of their own territories. However, Defra has included representatives for Scotland and Wales during discussions with the pig industry on PEDv. Engagement with their Governments is on-going and to date DAs have reserved their opinion on making PEDv notifiable. Northern Ireland will agree its approach with the Republic of Ireland as part of their whole-island strategy.

12. How and when would legislation be changed to make PEDv notifiable in England?

Defra would introduce a new Order under the Animal Health Act 1981 to make PEDv notifiable in respect of England, with a case definition to capture more virulent strains. This would be limited to a requirement to report suspicion of disease to the APHA and would not include additional powers to require movement restrictions, cleansing and disinfection of premises or culling of affected swine. Subject to Ministerial agreement and Defra resources, it is expected that any new legislation would come into force by the end of this year or early 2016.

13. Will making the disease notifiable pose a significant burden on industry?

We don't believe this would be the case. Defra estimates that should the disease be made notifiable there would be a total national cost across England of around £24,000. This represents the estimated time for all individual pig farmers in England to familiarise themselves with the new provisions and is not a physical cost. Should a PEDv outbreak occur and 10% of the industry needed to report suspicion or confirmation of the disease, it is estimated that there would be an additional national cost of around £2,100. At the individual level, this equates to about £300 per affected farm for time required to manage the disease.

14. If PEDv is made notifiable would culling and compensation be put in place, either immediately or in the future?

No. If the numbers of suspect cases become too high for AHDB Pork to manage effectively, it is likely that Defra would remove the requirement to notify PEDv and allow the disease to become endemic, with herds building up natural immunity.

Disease control in Canada has demonstrated that it is possible to reduce the spread of PEDv without culling. It is transmitted via infected pig faeces and scrupulous biosecurity measures are the key to control. The conclusion of the PED Core Group was that given the cost and logistics of culling, and the fact that none of the currently PED affected countries have used this method of control, culling might only be an

option in a few very specific scenarios e.g. if PEDv was found on a quarantine unit in imported pigs.

15. Will there be support for any additional measures over and above improving farm biosecurity?

AHDB Pork would have flexibility to decide how to use its “fighting fund” to assist farms with suspected or confirmed PEDv.

16. What penalties would apply should there be a failure to report suspicion or confirmation of PEDv?

As a requirement to notify suspicion or confirmation of the disease would be made by an order under the Animal Health Act 1981, the potential offences and penalties would be those set out in paragraphs 72 to 75 of the Act. Maximum penalties will be the same as for non-reporting of other notifiable diseases. However, in practice we believe the industry will self-enforce this requirement. Veterinary advisors would be unlikely to fail to meet legislative requirements. A case definition has been developed by the Pig Veterinary Society and agreed by the Defra led PED core group.

17. Legislation will take a long time to put in place. Wouldn't it be better to opt for a voluntary approach which would be quicker?

Both approaches are being used. The PED Core Group believes that any PEDv outbreak can be most effectively managed using a combination of legislation and industry led action. However if a decision is reached not to put in place legislative provisions or a PEDv outbreak occurred before legislation was in place, an industry led voluntary approach could be adopted. The Government does not recommend voluntary disease reporting in the longer term because a lack of compulsion could lead to tardy reporting and/or non-reporting with serious implications for disease spread.

18. Is a vaccine available to protect against PEDv?

There is no licensed vaccine available in the EU at present. However, vaccines under preliminary authorisation are available in the USA. At present these are mainly being used to boost immunity in herds already infected with PEDv rather than for prevention of infection or disease in naïve herds.

19. What support will there be to carry out testing and who will pay for that?

This would be covered by the AHDB Pork contingency plan and paid for from their allocated resources. Government would not get involved. AHDB Pork is already providing funding for testing diagnostic samples from pigs with diarrhoea.

20. What would be the impact on trade of making the disease notifiable?

Our analysis from information received so far from the USA and Canada suggests there should be no adverse impacts on EU or third country trade from making PEDv notifiable per se. Therefore, putting in place a new Order under the Animal Health Act is not in itself expected to affect the export trade in animals, germplasm or products to the EU or third countries. Moreover, making the disease notifiable gives Defra the opportunity to assert that PEDv is not present on its territory.

To date, mandatory trade bans have not been put in place internationally as a result of PEDv. Defra and industry will put communications in place to ensure that there are no misconceptions both within the industry and with some of GB's valuable third country export markets including China. They will also ensure that effective communications are put in place to help foresee and avoid any negative effects on international trade (including live pig imports and pork). Defra will also continue to carefully monitor its import protocol given that the origin of the less virulent, but high mortality, PED strain in Europe is as yet unknown.

21. Is PEDv notifiable in other Member States?

To date, there have been no cases in the EU of PEDv caused by the "China/USA 2012" virus strain identified in the USA/Canada. However, PEDv caused by other strains is now presenting in herds in continental Europe. PEDv is not a notifiable disease at either EU or OIE level, although for the latter, initial occurrence should be reported as an emerging disease.

Ireland and France have notification controls in place to provide early awareness of when and where new cases of disease are found.

22. Will the proposal for Government to release to AHDB Pork contact details of premises reporting disease suspicion or confirmation have Data Protection Act implications?

Yes. Defra would cover Data Protection Act requirements if PEDv was made notifiable. We would also take careful note of comments received.

23. What personal data would be made available to AHDB Pork when a suspect is notified?

It is intended that this would include the name and address of the owner of the herd and location details of disease suspects. The person responsible for the herd would then decide what further information to make available to AHDB Pork.

By sharing this information with AHDB PORK farmers will benefit from a greater level of support, practical help and provision of advice on how best to deal with any outbreak.

24. How can Defra guarantee that AHDB Pork will not share that information with other bodies?

Before bringing legislation into force, Defra would put in place a formal agreement with AHDB Pork to obtain assurances that they would not share this information outside of AHDB Pork.

25. What happens if someone does not report suspected/ confirmed disease?

This would be unlawful and could lead to prosecution under the Animal Health Act.

26. What is the legal situation and RCVS guidance if a pig keeper tells the attending vet not to report suspect disease?

The RCVS have advised that, whilst not directly legislated for within their Code of Professional Conduct for Veterinary Surgeons, failure to report PEDv would be considered a breach of the law if it was a notifiable disease and would contravene several aspects within the code. Section 6.4 of the code states: "Veterinary surgeons must comply with legislation relevant to the provision of veterinary services". Also, irrespective of whether or not PEDv is notifiable, if a vet suspects PEDv they can break client confidentiality and notify the authorities under section 14.3 of the code: "In the circumstances where the client has not given permission for disclosure and the veterinary surgeon or veterinary nurse considers that animal welfare or the public interest are compromised, client confidentiality may be breached and appropriate information reported to the relevant authorities."