This disease, whose full name is Porcine Reproductive and Respiratory Syndrome, is also known as ‘Blue Ear Pig Disease’. It is caused by a virus and is a very important and highly infectious pig disease.

The virus suppresses the immune system and lowers a pig’s resistance to other infections, so clinical signs can vary between farms depending on what other infectious agents are present.

Transmission between pigs is by nose to nose contact, via infected semen and also infected faeces. The virus can be spread between pigs by contaminated needles and infected muck on clothing, boots and vehicles. The disease is commonly spread between farms by carrier pigs, usually who are not showing clinical signs. There is evidence to suggest transmission by air does occur, particularly when temperatures are low and during dull days with high humidity.

At low temperatures, the virus can survive for up to a month outside of the pig; however the virus is killed at higher temperatures, by drying and by making the environment more acidic.

**Clinical Signs**

Clinical signs can be seen in all ages and are more severe when the herd has little or no immunity.

Once infected, sows can show an increased body temperature, becoming inappetant because of this, and have laboured breathing.

The virus multiplies in rapidly dividing cells within the body, meaning that, although conception itself does not appear to be affected, the rapidly growing foetus can be affected around the time of implantation leading to resorption, giving an increased number of returns on farm. If infection of the foetuses occurs later on during pregnancy then mummification and stillbirths can result.

If the sow is viraemic at farrowing (the virus is actively multiplying) her milk can contain the virus for 1-2 days into lactation, and so can continue to be passed onto the piglets. Her own litter are likely to already be infected; naive piglets from other unaffected litters however, would be infected if they are fostered onto this sow and then show clinical signs. PRRS affected piglets are weak and more likely to be laid upon by the sow, so increasing pre-weaning mortality.

An increase in respiratory disease is usually seen with weaners and growers, and this is frequently made worse by secondary bacterial infections. Any background clinical disease, which is seen occasionally or at low levels on the farm, usually increases in numbers of cases as the pigs’ immune protection is lowered due to the damage caused by the virus.

Adult boars may become listless with high temperatures that affect sperm development. This, and the viral insult on the sperm themselves, causes semen quality to lower. It will take up to 6 weeks for undamaged semen to be produced and for normal fertility to return.
Although only 1-2% of pigs show clinical signs of ‘blue ears’, when it does occur it is due to the body decreasing blood flow to the skin during times of severe infection so that it can be directed to vital organs such as the brain and kidneys.

Hers do build up immunity to the PRRS virus and, once this has occurred, PRRS may only result in subclinical disease such as decreased growth.

**Diagnosis**

A herd history of breeding losses and respiratory disease can suggest a new outbreak of infection. Lesions on the lungs at post-mortem can indicate viral infection, and samples from post-mortem can be tested for either PRRS antibody, to see if the pig has been exposed to the virus, or tested for the virus itself.

Blood samples can also be taken, but as antibodies to the infection take a minimum of 4-7 days to appear, blood samples need to be timed accurately to be interpreted correctly.

**Treatment**

As the virus can be spread by contaminated needles, it is advised to change needles regularly when treating animals, particularly after injecting an affected litter or group. During an outbreak of PRRS, it is advised to change needles between litters or groups to reduce the viral spread.

As PRRS is caused by a virus, antibiotics are not effective against the disease itself. As there is often an increase in secondary bacterial infections that are usually seen on the farm however, antibiotics are sometimes used to control these infections. Which antibiotic is advised will be dependent on the infection present, and in-feed or water medication may be the best option available.

At farrowing, severely affected sows can be treated with broad-spectrum antibiotics, for secondary infections, and an anti-inflammatory to decrease the sow’s temperature and encourage her to eat. Affected piglets require considerable nursing.

**Prevention**

Good biosecurity will prevent the virus from entering your negative farm, or prevent new strains from entering an already infected farm. Quarantine periods off farm and careful monitoring of disease on the supplying farm may be of help. Good physical biosecurity measures, especially thorough cleaning, disinfection and drying of transport, are effective means of lowering risk.

There are commercial vaccines available containing either a live modified PRRS virus or a dead PRRS virus, both of which are used to increase the immunity to these strains of the infection. These vaccines are licensed in both breeding or growing pigs.

Please speak to your Vet to discuss any questions you may have about PRRS on your farm.

[www.bishoptonvets.co.uk](http://www.bishoptonvets.co.uk)