

## INVESTIGATION OF JAUNDICE IN PIGS

For queries or comments contact: [pigexpertgroup@apha.gov.uk](mailto:pigexpertgroup@apha.gov.uk)



Jaundice is due to **an accumulation of bilirubin** and can be:

- pre-hepatic – disruption happens before bilirubin has been transported from the blood to the liver e.g. haemolysis
- intra-hepatic (aka hepatocellular) – disruption happens inside the liver
- post-hepatic (aka obstructive) – disruption prevents bile (and thus bilirubin) from draining into the digestive system

### Pathology:

Jaundice is most easily seen externally in the skin in non-pigmented breeds, in the conjunctivae and sclera and in the vulval mucosa. It is less easy to see in the oral mucosa. Full post-mortem examination will reveal yellowed subcutis and fat. Check in particular for anaemia, liver and kidney pathology, lymphadenopathy appearance of urine, and any other lesions.

### Samples and tests to investigate main differential diagnoses for jaundice in pigs

Diagnosis	Sample	Test	Main gross pathology	Comments
Septicaemia	Charcoal swabs from systemic sites ★	Bacterial culture	General, non-specific	Erysipelas cases are occasionally jaundiced
Leptospirosis	Kidney – fresh (hold fresh liver)	Pathogenic leptospira PCR	Renal – pale or discoloured, haemorrhages, swollen	Mainly periweaning and mostly rodent-leptospire associated
Coal tar toxicity	Liver, kidney, lymph node, spleen fixed ★ ★	Histopathology	Hepatic necrosis, anaemia, ascites	Check for source of coal tar
Porcine circovirus 2 hepatitis	Liver, kidney, lymph node, spleen fixed ★ ★	Histopathology (and immunohistochemistry if no viral inclusions)	Hepatitis and lymphoid depletion	Postweaned and may be seen in young pigs in unvaccinated herds
Ragwort toxicity	Liver, kidney, lymph node, spleen fixed ★ ★	Histopathology	Hepatic fibrosis	Uncommon diagnosis
<i>M. suis</i> haemolytic anaemia	Spleen – fresh (or better EDTA blood from affected pig)	Mycoplasma DGGE/PCR	Circulatory - anaemia	Uncommon diagnosis

★ e.g. meninges, liver, spleen, lung

★★ fix in 1:10 formalin with a wide range of other tissues



[Leptospirosis](#) (see page 9 of link)



[Coal tar toxicity](#)

[PCV2 hepatitis](#) (see pig section of link)

