

What is Avian influenza (AI)?

AI is a disease of animals caused by influenza A viruses. Influenza A viruses are classified according to the types of haemagglutinin (H1 - H18) and neuraminidase (N1 - N11) proteins on their surface.

All known influenza A virus subtypes have been found in birds (H1 - H16 and N1 - N9). Subtypes H17N10 and H18N11 have only been identified in bats. Wild birds act as natural, often asymptomatic carriers of influenza A viruses. Strains of influenza A virus may on rare occasions be transmitted from wild birds to other birds, pigs, horses, seals, whales, other mammals, and humans. See below for more information on H5N1 AI in UK and worldwide mammals.

AI viruses are categorised as being High Pathogenicity Avian Influenza (HPAI) or Low Pathogenicity Avian Influenza (LPAI) depending on their virulence in poultry.¹ Only strains with H numbers of 5 or 7 have the capability of being highly pathogenic and as such there is ongoing surveillance for H5 and H7 AI in both poultry and wild birds.

Reporting

Avian influenza (AI) is a notifiable disease in poultry and other captive birds, as well as in all wild and captive mammals. All suspect AI cases in birds must be reported - this is a legal requirement:

In England to Defra Rural Services Helpline on 03000 200 301.

In Wales, contact 0300 303 8268.

In Scotland, contact the local [Field Services Office](#).

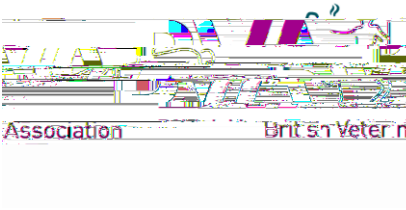
In Northern Ireland contact the DAERA Helpline on 0300 200 7840 or your local [DAERA Direct Regional Office](#).

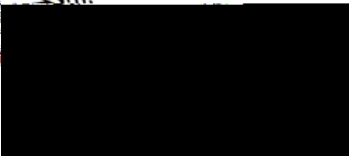
Dead wild birds should also be reported to Defra online reporting system above. The system has been updated to make it easier to report the location of dead wild birds (including being able to drop a pin on a map) and report a wider range of wild bird species groups.

As the situation is ever changing, vets, keepers of backyard flocks and any other types of poultry, and wildlife rehabilitators are advised to sign up to the APHA's Animal Disease alert subscription service to

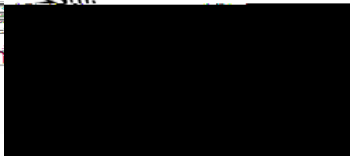
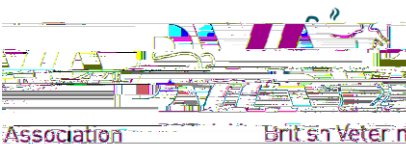
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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/968566/Avian_influenza_guidance_and_algorithms_for_managing_incidents_in_birds.pdf





Keepers of birds must keep a close watch on their birds for any signs of disease and seek prompt advice from a vet if they have any concerns. Avian influenza is a notifiable disease in poultry and other captive



This list is clearly extensive and could cover a whole variety of clinical conditions across all species of birds. For backyard poultry and wild birds the significance of these signs can be considered in the following way, although vets are reminded that any suspicion of AI is notifiable to Defra:

For ANY birds in shared housing the following signs of AI may be observed:

Unresponsive - quiet birds, who don't want to come out and engage as usual or come for treats. They may sit around, fluffed up. They may rally temporarily, but then soon tire.

Huddling - with each other or against coop furniture/equipment like in nests or around drinkers.

Unexpected deaths - sudden and rapid increase in the number of birds found dead with several other birds affected in the same shed or air space.

For ANY birds with severe disease consistent with, or at least suggesting notification of, AI the following signs are typical:

Neurological signs – shaking, twitching, lack of coordination and loss of balance, or just falling asleep & head nodding. Head and body tremoring.

Twisted heads or necks - leaving birds looking up at the sky or sideways.

Swollen heads - facial feathers may stick up in swollen areas.

Blue discolouration - of comb, wattles and/or legs

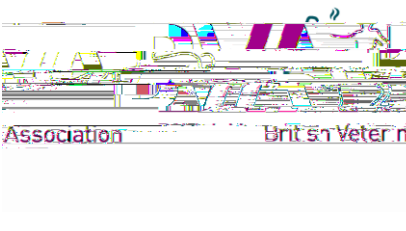
Weakness - unable to remain standing for long. Appear drunk and may struggle to control their wings. Drooping of the wings and/or dragging of legs.

Bruising - blood spots or swelling, haemorrhages on shanks of the legs and under the skin of the neck. Check in between the feathers.

diaphragm), especially if presence of other symptoms listed.

For photos of AI cases, including pathology, see:

<https://www.flickr.com/photos/defragovuk/sets/72157694543861305>

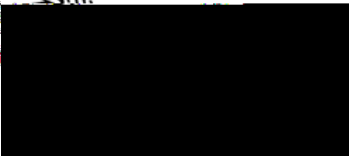
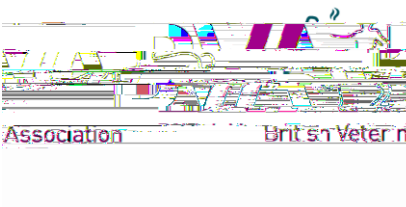


Coughing, sneezing gurgling or rattling or gaping
Focal facial swelling, eg around the eyes.
Ocular discharge
Cessation or marked reduction in egg production
Loss of appetite or marked decrease in feed consumption
Sudden increase or decrease in water consumption
Recumbency and unresponsiveness
Lethargy and depression
Fever or noticeable increase in body temperature
Diarrhoea – discoloured or loose watery droppings.

Clinical signs in wild birds

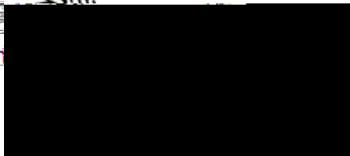
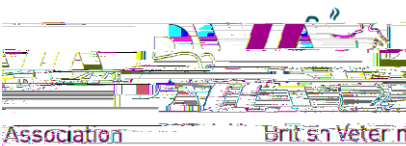
Although AI has been isolated in a very wide range of wild bird species (see: <https://www.gov.uk/government/publications/avian-influenza-in-wild-birds>), the most common species affected are waterbirds, such as swans, ducks and geese, and scavenging birds, such as corvids, some birds of prey and seagulls.

Clinical signs, involving the respiratory, digestive and/or nervous system, are hugely variable (see lists above) both between species and between individual birds. For example:



Spread of AI

Avian influenza is transmitted between birds by direct contact with an infected bird, or indirectly through contaminated body fluids and faeces, as well as by direct or indirect contact with infected wild birds and their secretions/faeces. It can also be spread by contaminated feed and water and other environmental matrices, or by dirty vehicles, clothing, footwear, and equipment. It is not an airborne virus, however there is the risk of droplet transmission, and only ten virus particles are needed.



Vets and keepers are reminded that the duty of care to provide for the basic needs for animals under their care according to the relevant country-specific animal welfare legislation must be ensured at all times, both for healthy and sick birds, unless otherwise directed by the UK Health Security Agency (UK HSA)

Dealing with wild birds in veterinary practice

Although the zoonotic risk of AI is very low, members of the public should not pick up obviously sick birds or handle dead birds, and veterinary practices should advise accordingly.

Defra have a reporting system for wild birds at: <https://www.gov.uk/guidance/report-dead-wild-birds>

Defra ask that members of the public, veterinary staff and others (e.g. wildlife rehabilitation centre staff) should be directed to use this service when the following is found:

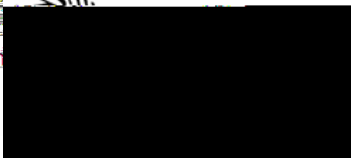
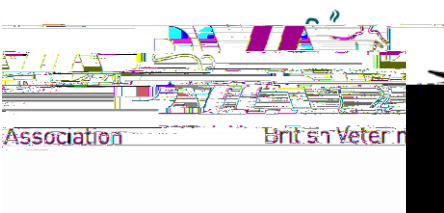
- 1 or more dead birds of prey (such as an owl, hawk or buzzard)
- 3 or more dead birds that include at least 1 gull, swan, goose or duck
- 5 or more dead wild birds of any species

The system can also be used to report other types or numbers of dead wild birds.

Triage and examination of birds

Birds should be triaged prior to examination. This should ideally include telephone triage prior to the bird being brought to the practice and use of photos and videos as appropriate. In the case of captive birds this should include information about how and where the birds are being kept, any new recent introductions, and the number of birds affected.

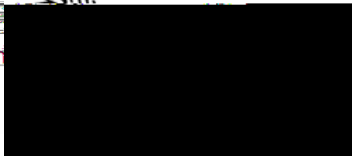
If suspect cases of AI are identified, it is likely that the location where the bird(s) are present will be placed under restrictions pending results. It is therefore sensible for veterinary practices and others to consider the possible impact on the practice if restrictions are served, to try and limit disruption to normal work. Whilst this may seem overly cautious, the consequences of AI cases on some wildlife centres, sanctuaries and zoos in the UK has already been devastating. Birds should be assessed on a case-by-case basis, alongside a practice-based AI risk assessment to include consideration of practice layout and avian case number. In most instances the following guidance will be appropriate;



Wild birds: At the current time it is prudent for veterinary practices (and wildlife rehabilitation centres), where possible, to assess and examine all wild birds outside, wearing appropriate PPE and minimising the number of staff involved.

Backyard poultry: telephone triage and full consideration of the history and clinical signs, alongside practice-





practice layout
number of birds routinely treated by the practice.

As the incubation period for AI is 2-8 days (and can be up to 14 days), according to risk (species and available facilities) it may be necessary to barrier nurse birds where possible and continue to use of PPE as above. Footbaths should be used at entry points to isolation facilities. Waste material from all birds should be bagged and disposed of as infectious clinical waste following BVA guidelines⁶, and appropriate disinfectants for AI used.⁷

