
Paramyxovirus

Paramyxovirus (PMV) of pigeons is a virus belonging to the Newcastle Disease (ND) Groups, group 1 paramyxoviruses. It causes very similar symptoms in pigeons to those caused by ND in domestic poultry. It is a notifiable disease under the Diseases of Poultry Order 1994. PMV in pigeons was first reported in the Sudan and subsequently moved towards Europe, reaching first Italy, Spain and Portugal then Holland, Belgium, Germany and France. In June 1983, racing pigeons were found to be affected in Cornwall, the first case in Great Britain. Since then hundreds of cases have been identified.

Clinical signs and symptoms

Occasionally, in some outbreaks, some pigeons may die suddenly without showing any symptoms. In the loft, the first signs are usually of diarrhea, sometimes watery, usually greenish in color. Birds become reluctant to move, depressed and lose their appetite, although they may drink more than usual. They will become quiet and reluctant to exercise. Birds of all ages may be affected, although in some lofts disease has been confined to young birds.

Nervous signs may develop early, even preceding signs of diarrhea, with trembling of the wings and head. Birds may tumble over when landing. Partial paralysis of wings and legs may occur and twisting of the neck (torticollis). In some cases, birds may not be able to pick up grain on attempting to feed. It is not uncommon for the majority of pigeons in a loft to show signs of the disease and a proportion of these may die. Those recovering from the disease may be left with some nervous signs. Others may have their racing ability affected. Similar symptoms are produced by other pigeon diseases e.g. enteritis, salmonellas, and by some poisons e.g. chemically - dressed seed.

Factors which can lead to spread of disease

- **Contact between birds;**
- **Contact with contaminated traveling boxes, transporters etc, that have not been adequately cleansed and disinfected;**
- **Drinking water in lofts and transporters**

- Pigeon fanciers visiting lofts and carrying infection on their clothes, hands and feet;
- Stray pigeons entering the loft
- contact with wild pigeons

What to do if disease is suspected

In all cases, suspected disease must be reported to your local Divisional Veterinary Manager. PMV is potentially very serious and this is why it was made notifiable. If you suspect the disease in your birds, you should contact your DEFRA local Divisional Veterinary Manager.

Keep your birds confined until a Veterinary Officer has made a diagnosis. If PMV infection is suspected, the Veterinary Officer will send carcasses and blood samples to a DEFRA Laboratory for diagnosis and your premises will be placed under movement restrictions. If disease is subsequently confirmed these restrictions will be retained until disease no longer exists. At this point, restrictions will be removed if no birds remain on the premises. Where live birds remain, restrictions will be maintained for a further 60 days to ensure that no further clinical signs appear in that time.

Vaccination

The best protection against this disease is often vaccination linked to strict security and hygiene. An inactivated vaccine is now licensed for use in pigeons and obtainable from private veterinary surgeons or a registered pharmacy. A club secretary, who should buy enough vaccine to provide two doses for all the birds involved, may handle the purchase on a group basis.

For best results, the vaccine must be given by a single injection under the skin, taking the following precautions:

- (a) the vaccine must be stored in accordance with the manufacturer's recommendations eg in a domestic refrigerator (2-8O C). Do not freeze the vaccine.**
- (b) birds showing any sign of illness should not be vaccinated;**
- (c) to limit the possible spread by vaccination of any other infections within the loft, needles should be changed frequently. Only new equipment or sterilised replacements should be used in each loft;**
- (d) handle birds carefully and quietly during vaccination. An inactivated vaccine does not produce stress or losses and need not result in a check in growth. Rough handling can produce stress;**

(e) If you have not previously carried out vaccination, consult your veterinary surgeon.

There is a simple procedure for vaccination. Remove the bottle from the refrigerator and allow it to reach room temperature. The bottle of vaccine should be shaken thoroughly before and during use. The vaccine should be injected under the skin at the base of the neck. Care should be taken to ensure that the needle has not come out through the skin on the other side as, if this happened, no vaccine would be given to the bird. Ideally, one person should hold the bird whilst another injects it. Hold the bird gently but firmly since a sudden movement can lead to the needle being bent or broken. If this happens and the needle cannot be recovered, veterinary advice should be sought. Otherwise the bird should be killed.

Disposable sterile syringes with 1/2" 20 gauge needles are supplied with each vial and must be destroyed after use. If glass or reusable syringes and needles are utilised, dismantle and boil for 10 minutes before use. After use, reusable syringes and needles should be rinsed thoroughly in cold water, dismantled, boiled and dried before storing.

To prevent the spread of infection, neighboring owners should not share a single bottle. Do not keep partially used vials but discard them within 24 hours of opening. Vaccine which has been unduly delayed in transport or improperly stored may not be effective and should not be used.

Vaccination schedule

Vaccination must be carried out in accordance with the manufacturer's instructions.

Side effects

No side effects should be seen in birds. Occasionally a small lump will appear at the injection site but this will disappear after a short time.

Vaccination of small lofts of birds

Vaccination at a central point will avoid difficulties of economical use of vaccine, experienced by fanciers with small numbers of pigeons. The following procedures will ensure adequate precautions to prevent the spread of disease (the same procedures can be used for the vaccination of batches of young birds as they become eligible):

a) a club may select a central vaccination point, convenient for members. The premises should allow sufficient space for the necessary procedures, have hand washing facilities for the vaccinators and have disinfectable

working surfaces.

(b) vaccinators should wear suitable clean overall clothing, which can be disinfected or disposed of after use. They should not wear the clothing normally worn when attending their own birds;

(c) fanciers should bring only healthy birds from healthy lofts for vaccination;

(d) only birds from one loft should be brought into the vaccination point at any one time. These birds should be vaccinated and removed before the birds from the next loft are brought in for vaccination.

(e) the loft owner should catch and present his own birds for vaccination. Vaccinators should not be involved in catching and holding birds. Care should be taken to ensure that birds are vaccinated in accordance with instructions.

(f) vaccinators should wash their hands and working surfaces should be swabbed with a DEFRA approved disinfectant between vaccination of birds from the different lofts.

Warning - human health

Accidental injection of the vaccine into a human can cause serious localized reactions. If accidental injection occurs go at once to the casualty department of the nearest hospital as emergency treatment may be necessary. Take the package or leaflet to show the doctor.