

# Pigeon paramyxovirus type 1

August 2017, Primefact 1121, seventh edition  
Animal Biosecurity and Welfare

## Introduction

Pigeon paramyxovirus type 1 (PPMV1) is an infectious viral disease affecting pigeons. PPMV1 is also known as avian paramyxovirus type 1.

In August 2011, PPMV1 was first detected in pigeon lofts in the Melbourne area. PPMV1 has been confirmed in racing, fancy and feral pigeons in NSW. The PPMV1 virus is now considered established in Australia.

Human infection with PPMV1 is rare and usually occurs only in people who have close, direct contact with infected pigeons. The virus causes only mild flu-like symptoms.

## What clinical signs are seen in pigeons?

Pigeons affected by PPMV1 are reluctant to leave the loft when released for exercise and appear a bit 'fluffed up' and 'off colour'.

Other clinical signs of PPMV1 include:

- high number of affected pigeons
- high number of deaths (up to 100% in some flocks/lofts)
- loss of appetite
- increased thirst
- lethargy
- respiratory signs e.g. laboured breathing
- greenish, watery diarrhoea
- vomiting or regurgitation
- neurological signs (head shaking, circling, head persistently turned to one side)

There is no specific treatment for PPMV1. Infected pigeons often die within 72 hours, but may survive with supportive therapy e.g. electrolytes, acidifying agents, probiotics. The addition of electrolytes to the drinking water is the most effective treatment. Control of other diseases that may be affecting the pigeons is also important.

A milder version of the disease has also been identified in domestic pigeons. This primarily occurs in younger pigeons that have not yet received two vaccinations, but also occasionally in older birds if annual booster vaccinations have been delayed. Similar clinical signs are seen (with minimal neurological signs), but less pigeons are affected and symptoms are less severe. Most pigeons recover with supportive therapy.

## How will my veterinarian diagnose PPMV1 in my pigeons?

Confirmation of PPMV1 infection requires a laboratory diagnosis. Separate tracheal (or pharyngeal in live birds) swabs and cloacal swabs should be placed in virus transport medium i.e. phosphate buffered gelatin saline (PBGGS) and submitted chilled to NSW Department of Primary Industries (DPI)

Laboratory Services, Elizabeth Macarthur Agricultural Institute (EMAI), Woodbridge Road, Menangle NSW 2568. A specimen submission form must accompany specimens submitted to the NSW DPI laboratory. Forms are available at <http://www.dpi.nsw.gov.au/about-us/services/laboratory-services/veterinary>.

PBGS is available free of charge from the virology laboratory at EMAI. Orders can be placed by sending requests to [virology.enquiries@dpi.nsw.gov.au](mailto:virology.enquiries@dpi.nsw.gov.au). PBGS can be stored in the freezer indefinitely. PBGS is also suitable as a transport medium for most other virus investigations.

In an emergency, and if no PBGS is available, swabs can be placed in 1 ml of sterile saline or an air-tight small ampoule without a buffer if they are delivered to the NSW DPI laboratory on the same day.

## How does PPMV1 spread?

PPMV1 is highly infectious and transmitted easily between pigeons. PPMV1 is usually spread by the movement of pigeons, but it can also be carried in eggs. Infected pigeons may shed the virus in their faeces and other discharges contaminating the environment (including feed, water, equipment and human clothing), which allows transmission to other pigeons. PPMV1 can survive in the environment for several weeks.

Factors that can lead to spread of disease include:

- contact with infected pigeons (including strays or feral pigeons)
- contact with contaminated travelling boxes or transporters that have not been cleaned and disinfected adequately
- shared drinking water or food in lofts and transporters
- virus carried on clothes, hands and footwear of loft visitors

## What can I do to prevent PPMV1 in my pigeons?

Simple biosecurity measures that can be implemented to prevent the introduction of PPMV1 into flocks/lofts include:

- prevent feral pigeons from having contact with your pigeons
- prevent feed and water being contaminated by feral pigeon faeces and other discharges
- limit unnecessary visitors to your pigeons
- isolate introduced pigeons (including strays and any pigeons returning from a show or race) for at least 2 weeks before introducing them to your flock/loft
- attend to introduced pigeons last each day and ensure clean clothing/footwear before attending to flock/loft pigeons the next day
- keep lofts and equipment clean
- practice good hygiene when attending bird shows, auctions, other flocks/lofts etc
- wash your hands and clean clothing/footwear after visiting other pigeons
- clean and disinfect equipment used to house, transport, feed and water pigeons

Detergents e.g. washing-up liquid, laundry detergent and car/truck wash detergents can be used to loosen and remove dirt prior to disinfection. In order to be effective, detergents must have a contact time of at least 15 minutes before washing off.

## Can pigeons be vaccinated against PPMV1?

Yes. There is a registered inactivated (killed) vaccine available in Australia that can aid in the control of PPMV1 in pigeons. The vaccine can be supplied by your veterinarian. Further information is available at <https://portal.apvma.gov.au/pubcris>.

It's important to follow the manufacturer's instructions for storage and use of the vaccine.

It is recommended that organisers of pigeon races and shows ensure that only healthy vaccinated pigeons are allowed to participate at these events.

## Do I have to report cases of PPMV1?

Yes. PPMV1 is a notifiable disease under NSW legislation. This means you have a legal obligation to notify authorities if you know or suspect that pigeons have this disease.

You may notify suspect or confirmed PPMV1 in one of the following ways:

- phone your [Local Land Services](#) on 1300 795 299; or
- contact a [NSW Department of Primary Industries](#) veterinarian or regulatory officer; or
- complete the online form at <https://biosecurity.transactcentral.com/Biosecurity/servlet/SmartForm.html?formCode=biosecurityrisk>.

## More information

- For biosecurity general enquiries, phone 1800 808 095

---

© State of New South Wales through the Department of Trade and Investment, Regional Infrastructure and Services 2017. You may copy, distribute and otherwise freely deal with this publication for any purpose, provided that you attribute the NSW Department of Primary Industries as the owner.

PUB17/ 540