



Adelaide  
Bird & Exotics  
Vet Centre

# Pigeon Paramyxovirus 1 in South Australia

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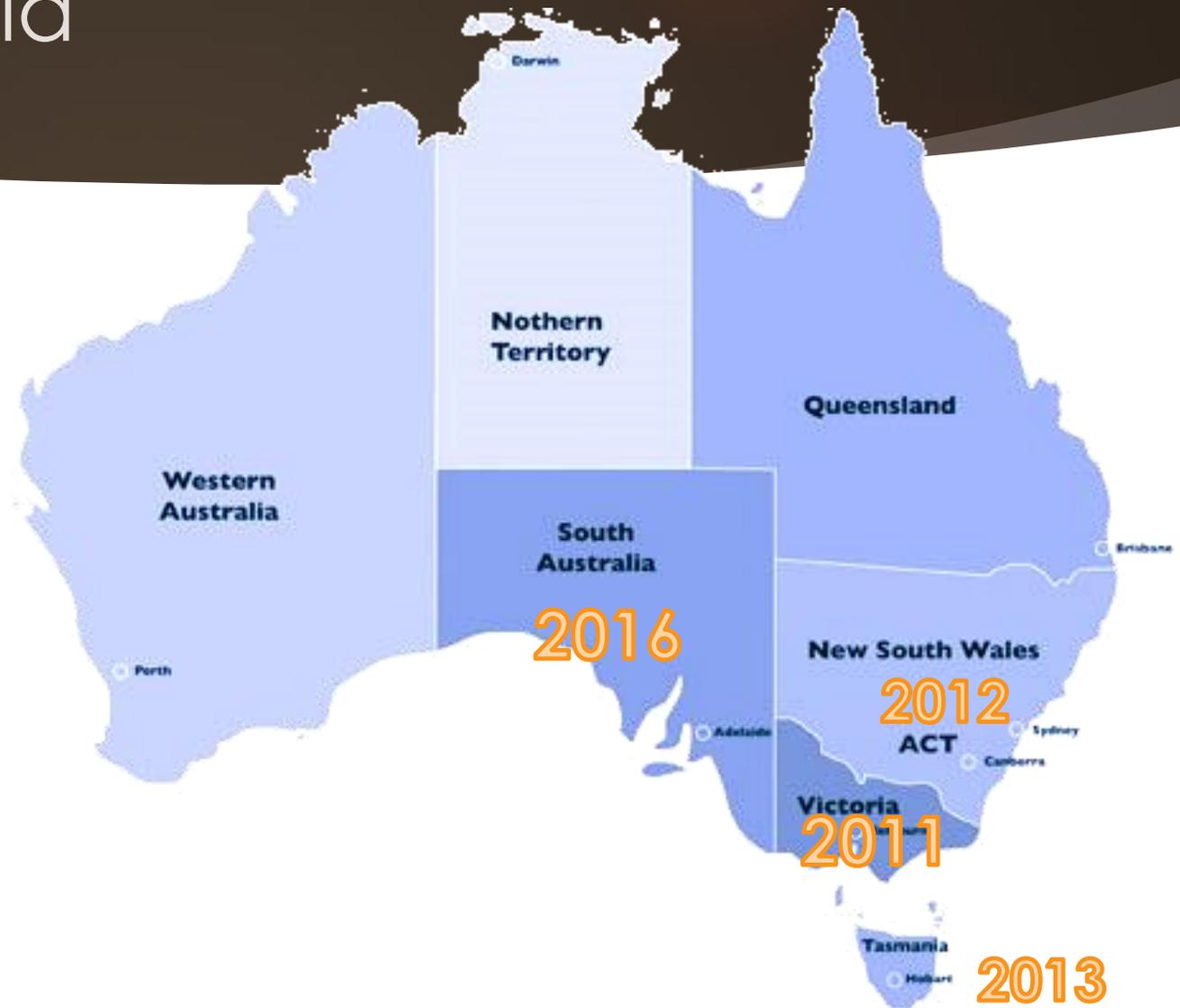
BSC(VET)(HONS) BVSC

MANZCVS (AVIAN HEALTH, WILDLIFE HEALTH, UNUSUAL PET MEDICINE)

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# PPMV1 in Australia

- ▶ 2011, August Victoria
  - ▶ widespread from Shepparton to Melbourne
- ▶ 2011, October
  - ▶ in feral pigeons in Victoria
- ▶ 2012, May NSW
  - ▶ birds brought illegally into the state
- ▶ 2012, November
  - ▶ In feral pigeons in NSW
- ▶ 2013, June Tasmania
- ▶ 2016, January South Australia



# What is the cause of the disease?

- ▶ It is caused by a virus fairly specifically affecting pigeons
  - ▶ Found in
    - ▶ feral Spotted turtle doves
    - ▶ Collared sparrowhawk
  - ▶ Same virus DNA as found in the Middle East
  - ▶ Believed to have come in with smuggled pigeons
  - ▶ This virus is becoming endemic in Australia



# PPMV1 is related to but is NOT Newcastle disease

- ▶ Newcastle disease is caused by
  - ▶ Avian paramyxovirus
- ▶ Affects many bird species, not one
- ▶ Virulent Newcastle disease is NOT in Australia
- ▶ The impact on the chicken product industry of this disease would be enormous both financially and in terms of death of all birds in the exclusion zone

# Does PPMV1 affect humans?

- ▶ Paramyxovirus can possibly cause mild 'flu-like' symptoms in humans
  - ▶ Mild conjunctivitis
- ▶ BUT this has not yet occurred
- ▶ Very close contact would be required
- ▶ Wearing personal protective equipment will reduce risk when handling affected pigeons
  - ▶ Mask, glasses, long-sleeved shirt



# What does an infected pigeon look like?

- ▶ Gut signs
  - ▶ eating less, lethargic
  - ▶ Regurgitation
  - ▶ Large crop
  - ▶ Diarrhoea



# What does an infected pigeon look like?

- ▶ Neurological signs:
  - ▶ Head tilt
  - ▶ Twisted neck
  - ▶ Wobbly, weak
  - ▶ Lethargic



# Death

- ▶ Originally as high as 70- 80% of lofts died
- ▶ Now percentage is lower:
  - ▶ 10 – 20%
  - ▶ Efficacy of vaccine protects from deaths
  - ▶ Or possibly the virus is mutating



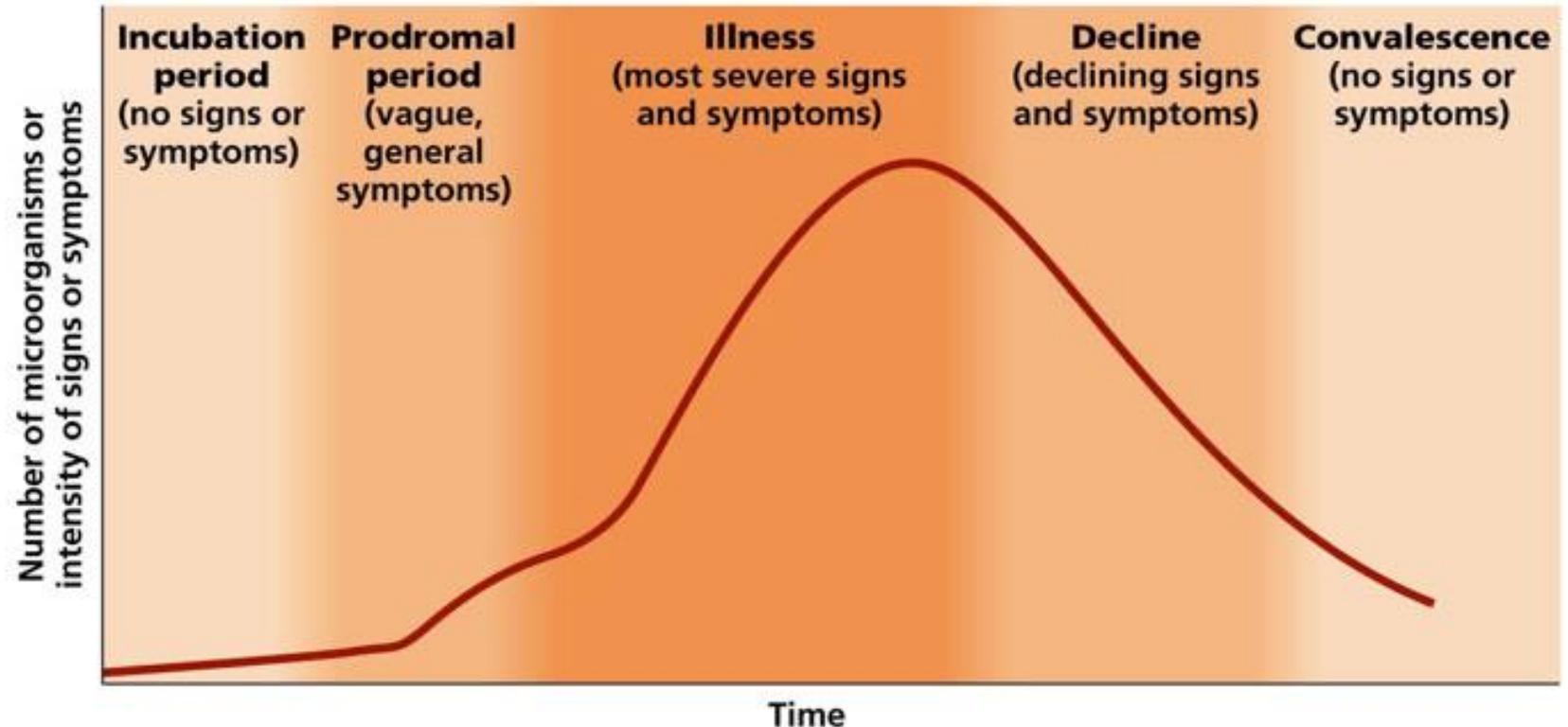


# How contagious is this disease?

- ▶ The virus can survive in faeces for several months
- ▶ It survives hot and cold weather conditions
- ▶ It can survive being transported on hands, clothing and shoes.
- ▶ Affected birds who survive shed virus for weeks
- ▶ Discharge from the bird contain the virus
  - ▶ Crop fluid
  - ▶ Faeces

# Incubation period

- ▶ The incubation period is the time between the bird getting the virus and showing clinical signs
- ▶ As short as 3 days
- ▶ As long as 28 days
- ▶ Average = 14 days



# Getting a diagnosis

- ▶ Pigeon paramyxovirus is a NOTIFIABLE disease in South Australia.
- ▶ This status has been made to:
  - ▶ follow the spread of the disease
  - ▶ look for possible spillover into other pigeons and doves, as seen in both Victoria and NSW.
  - ▶ As the disease can mimic other diseases, it provides an opportunity to check that other diseases are not present.
    - ▶ Avian influenza
    - ▶ Newcastle disease

# How to get a diagnosis

- ▶ Contact your vet indicating that you have a possible PPMV1 outbreak.
- ▶ Submit the live bird to the vet
- ▶ Provide a history of:
  - ▶ Bird movements – when did birds arrive/leave
  - ▶ Vaccination status
  - ▶ Recent treatments given
- ▶ Diagnosed illnesses in the flock
- ▶ The vet will submit the live bird with documentation to the state laboratory after contacting Biosecurity SA.
- ▶ Advantage:
  - ▶ if it is negative, an attempt to discover why the birds died may occur at no cost to you
  - ▶ if it is positive, a result within 24h is likely – rather than the 2-4d delay that occurs with interstate diagnosis.

# Other diseases that look like PPMV1

- ▶ If in doubt, submit the bird, do not continue to treat what may not be present
- ▶ Diseases that imitate the presentation of PPMV1
- ▶ Pigeon circovirus
  - ▶ Suppressed the immune system – if birds have this disease, they cannot use the vaccine and are more likely to die from PMV1.
- ▶ Bacterial infections
  - ▶ *Salmonella*, *E coli*,
- ▶ Protozoal infections
  - ▶ Trichomonosis= sour crop,
  - ▶ Spironucleosis
- ▶ Fungal infections
  - ▶ Aspergillosis,
  - ▶ Candidiasis