



Adelaide
Bird & Exotics
Vet Centre

Pigeon Paramyxovirus 1 in South Australia

DR ANNE FOWLER

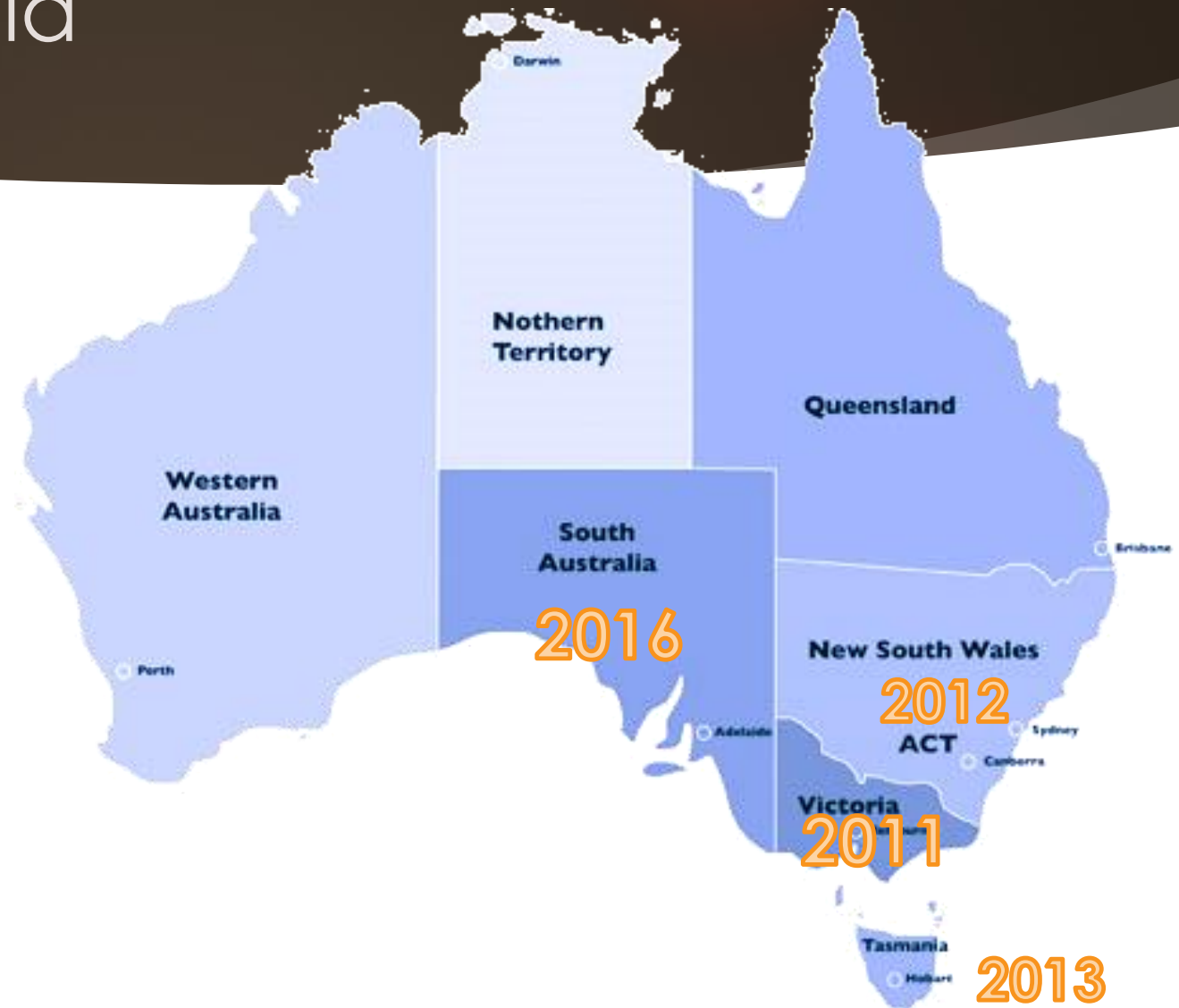
BSC(VET)(HONS) BVSC

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

ADELAIDE BIRD & EXOTICS VET CENTRE, 129 RICHMOND RD, RICHMOND, SA. PH: (08) 84438438

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



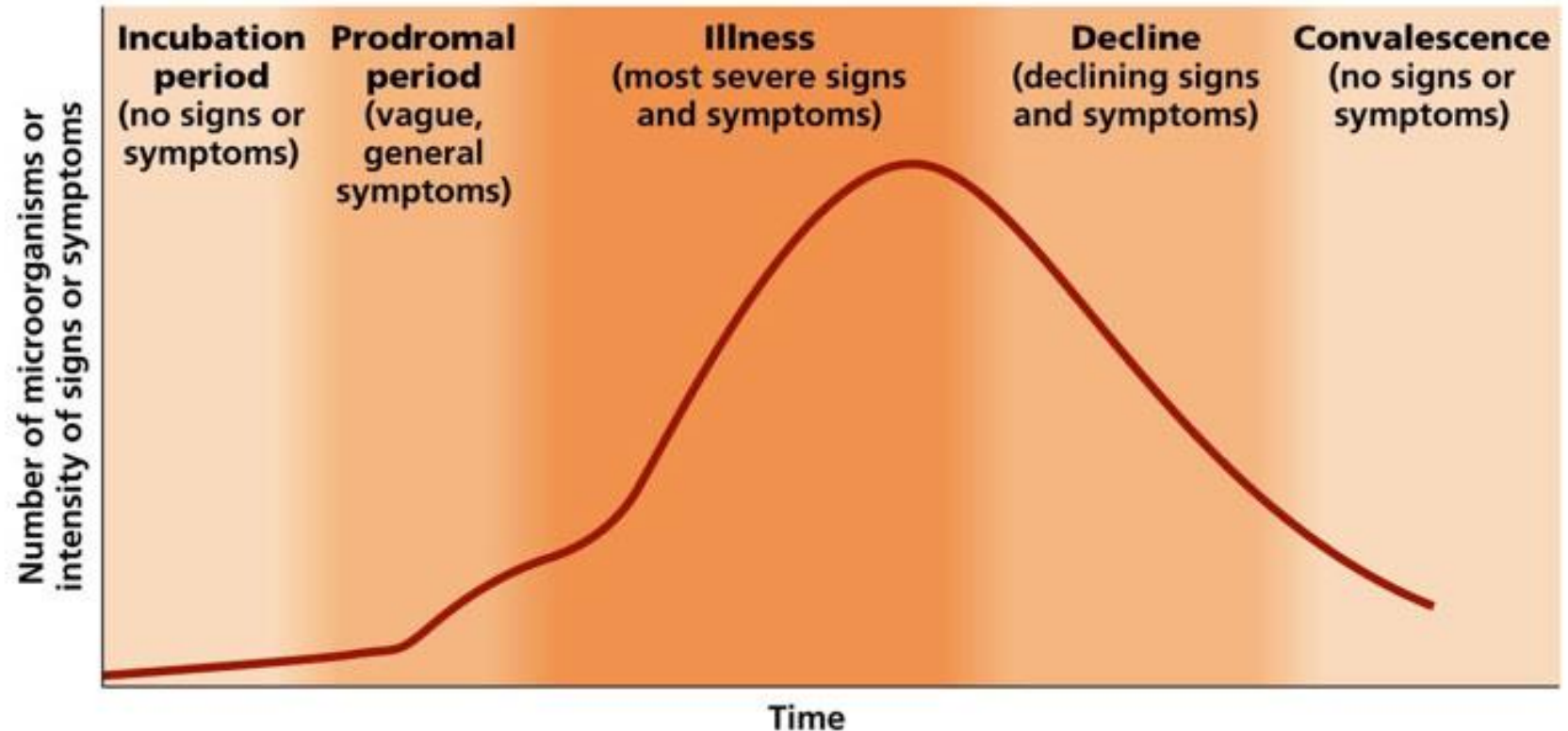


How contagious is this disease?

- ▶ 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