Hygiene Protocols for the Prevention and Control of Diseases (Particularly Beak and Feather Disease) in Australian Birds

Chlamydophilosis: Response to Test Results

Australian Government

Department of the Environment and Heritage

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Note

This document *Chlamydophilosis: Response to Test Results*, has been developed with the involvement and cooperation of a broad range of stakeholders, but the making of this document does not necessarily indicate the commitment of individual stakeholders to undertaking any specific actions. The attainment of objectives and the provision of funds may be subject to budgetary and other constraints affecting the parties involved. Proposed actions may be subject to modification over the life of the document due to changes in knowledge.

Chlamydophilosis: Response to Test Results

- Persons at risk who have been in contact with infected birds or contaminated materials should be informed about the nature of the disease. They should be advised to see a medical practitioner, irrespective of whether they have respiratory signs, who should be told they may have been exposed to *C. psittaci*. Treatment should be initiated if clinical signs fit psittacosis..
- All personnel should be instructed on the pathogenesis of the disease. Personnel who will be cleaning cages and equipment or handling birds should wear protective clothing, powderless nitrile gloves, a disposable surgical cap, and a P2 face mask.
- Any dead birds should be thoroughly sprayed with 2% Virkon S solution to which has been added 10 mL of detergent per litre, to facilitate penetration of feathers. This is to prevent aerosolization of infectious particles.
- Any necropsies should be performed under a biological safety cabinet or equivalent.
- Examine records to determine bird movements as far back as possible to aid in identifying sources and exposed persons.
- Forward all sick birds to the hospital in a safety cage for treatment.
- All in-contact (exposed) birds should be isolated and treated.
- Test all in-contact birds
- Cage management:
  - Avoid the transfer of droppings, feather dander and oculonasal secretions from one area to another.
  - Dispose of all nest boxes and porous equipment (including wooden perches)
  - Never stack cages.
  - Individual water supply - do not allow water to travel from one cage to another.
  - Use litter that does not produce dust (newspaper)
  - Wash all cages and receptacles daily. Disinfect all receptacles with 2% Virkon S solution and allow 10 minutes' contact time. Rinse residual disinfectant from receptacles.
  - Exhaust ventilation should be sufficient to prevent accumulation of aerosols and prevent contamination of other areas and the environment.
  - Minimise contamination from dust by spraying the floor with 2% Virkon S solution before sweeping it.
  - Frequently remove waste (after moistening with 2% Virkon S) and dispose of it in accordance with Section 11.
- Thoroughly clean and disinfect aviaries with 2% Virkon S solution and allow 10 minutes' contact time. Rinse residual disinfectant from surfaces and allow to dry in the sun. Discard all porous material and nestboxes.
- Treatment
  - Treated sick birds and treated healthy birds can be reinfected and should not be exposed to potential sources of infection.
  - Birds should not be stressed (eg, chilling, heating, transportation)
  - Ensure that birds that are to be treated are housed in clean and uncrowded cages
  - Doxycycline therapy. Data are not available for the treatment of Neophema sp. Therapy for cockatiels has been reported by Powers *et al.* (2001), and in-water treatment by Flammer *et al.* (2001). In-water medication failed to produce adequate blood levels of doxycycline in budgerigars (Flammer *et al.* (2003). In-water medication at 400 mg/L doxycycline has been commonly recommended for 21-40 days, depending on the size of the bird. Doxycycline doses of 50 mg/kg may cause regurgitation in some psittacine

birds (Carpenter, 2001).

- High dietary concentrations of calcium and other divalent cations should be avoided since they chelate with tetracyclines and so inhibit their absorption. Sources of calcium such as cuttlebone and mineral blocks should been removed.
- Therapy should be continued for the full recommended period to try to avoid relapses. Ill birds may appear clinically normal after a few days' treatment, but can shed chlamydial organisms within days.
- Oral doxycycline 25-50 mg/kg
- Injectable tetracyclines are to be avoided in threatened neophemas since they may damage pectoral muscles
- Medicated feed may be used as the sole source of food for at least 30 days for neophemas, and recipes are available.

References

1. Carpenter JW, Mashima TY and Rupiper DJ (2001). *Exotic Animal Formulary*, 2nd Ed. WB Saunders Company. Pp 118-119.

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5. Powers LV, Flammer K, Papich M. 2000. Preliminary investigation of doxycycline plasma concentration in cockatiels (*Nymphicus hollandicus*) after administration by injection or in water or feed. *J Avian Med Surg*. **14**:23-30.