

PSITTACINE BEAK AND FEATHER DISEASE: TRIAL TREATMENT FOR AN ENDEMIC FATAL DISEASE OF PARROTS IN UAE



Fig 1. African grey parrot (©Giulio Russo).

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Psittacine beak and feather disease (Pbfd) is caused by a circovirus belonging to the family Circoviridae. It is a small DNA virus very resistant to disinfectants and persistent in environment. The virus causes disease in New and Old World parrots. The Pbfd virus is extremely infectious and is spread horizontally via ingestion or inhalation of infected faeces, feather dust, crop secretion or fomites and vertically from hen to egg embryo.

Adult birds normally develop the "beak & feather" form: abnormal feather and beak growth with progressive immunosuppression. Young parrots tend to develop the acute/peracute form with severe immunosuppression, anaemia and death.

Nad Al Shiba Veterinary Hospital has seen an increasing incidence of this disease since opening in 2004. Pbfd has been identified in several parrot species but predominantly young African grey parrots (*Psittacus e. erithacus*). This typical patient presents at 3 to 10 months old having been purchased in a pet shop and is usually symptomatic (see above). Haematology shows severe leucopenia (low white blood cell count) and secondary infections signs/symptoms may be present.

While severe leucopenia is highly suggestive of Pbfd, haematology alone is not diagnostic. A normal haemogram in an asymptomatic young African grey parrot does not rule out Pbfd as the bird may be incubating the virus. The diagnosis is confirmed by PCR testing from blood or more reliably, bone marrow. Histopathology on post mortem tissue from the Bursa of Fabricius is also diagnostic.

There is currently no proven treatment for this fatal disease. Nad Al Shiba Veterinary Hospital is trialing avian interferon, a drug showing some promise in treating Pbfd positive young African greys, however a firm protocol has yet to be established. Birds accepted for the trial will receive the following diagnostics and therapy:

- A bone marrow aspirate and PCR test to confirm Pbfd status before and after trial.
- A course of one week of antibiotic and antifungal to prevent opportunistic infections.
- Multiple haematology tests run during trial to assess the response of the bird to the treatment.
- Daily interferon antiviral therapy.

The hospitalisation period will last for 3 months during which the parrot will receive a daily dose of gamma (or omega) avian interferon and an appropriate diet and management according to the species.

For veterinarians wishing to refer birds for trial therapy please contact Giulio Russo at above address or Nad Al Shiba Veterinary Hospital at info@nadvethosp.com

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Kori Bustard (*Ardeotis kori*) Care Manual



Created by the
AZA Gruiformes Taxonomic Advisory Group
in Association with the
AZA Animal Welfare Committee

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The information contained within this Animal Care Manual (ACM) provides a compilation of animal care and management knowledge that has been gained from recognized species experts. This includes AZA (Association of Zoos and Aquariums) Taxon Advisory Groups (TAGs), Species Survival Plan® Programs (SSPs), biologists, veterinarians, nutritionists, reproduction physiologists, behaviorists and researchers. This ACM is based on the most current science, practices, and technologies used in animal care and management and are valuable resources that enhance animal welfare by providing information about the basic requirements needed and best practices known for caring for ex situ kori bustard populations. This ACM is considered a living document that is updated as new information becomes available and at a minimum of every five years.

Although the information presented is intended primarily for the education and training of zoo and aquarium personnel at AZA-accredited institutions, the manual provides valuable information for any organisation or project that manages kori and other species of bustards. The ultimate goal of this ACM is to facilitate excellent kori bustard management and care, which will ensure superior kori bustard welfare at AZA-accredited institutions. Ultimately, success in our kori bustard management and care will allow AZA-accredited institutions to contribute to kori bustard conservation, and ensure that kori bustards are preserved for future generations.

This manual is on the AZA website, but you need to be an AZA member to access it. Any non-AZA members interested in obtaining a copy of the pdf should contact Sara Hallager, Biologist, Smithsonian National Zoological Park, 3001 Connecticut Ave NW, Washington DC 20008, 202 633 3088. hallagers@si.edu