

Infectious Disease Protocol: Canine Distemper

Basic Disease Information:

- Morbillivirus (family Paramyxoviridae; enveloped RNA)
- Highly contagious. Aerosol, droplet, direct contact most common. Fomite transmission over short time/distance
- Clinical signs: various- upper respiratory disease including purulent nasal discharge, pneumonia, dyspnea, vomiting, diarrhea, ocular problems, and neurological difficulties
- Dogs, ferrets and raccoons are susceptible species
- **Incubation Period:** Fever spike (3-6 days post infection), clinical signs 1-4 weeks post infection, CNS signs may appear up to 3 months later with or without preceding signs
- **Shedding Period:** Up to 120 days, but usually <60 days
- **Carrier state:** No, but mild and non-apparent infection are common and important in propagation.
- Routine disinfection is adequate; susceptible to heat, drying, and most common disinfectants
- Wildlife are susceptible to and can transmit CDV to dogs. Proper disinfection of transporting enclosures must be done after every use and avoid transporting wildlife and dogs in the same vehicles when possible. If not possible, ensure dogs can't be exposed to bodily fluids from a wild animal!
- **Vaccination on intake is the cornerstone of distemper prevention in a shelter!**

General Policy:

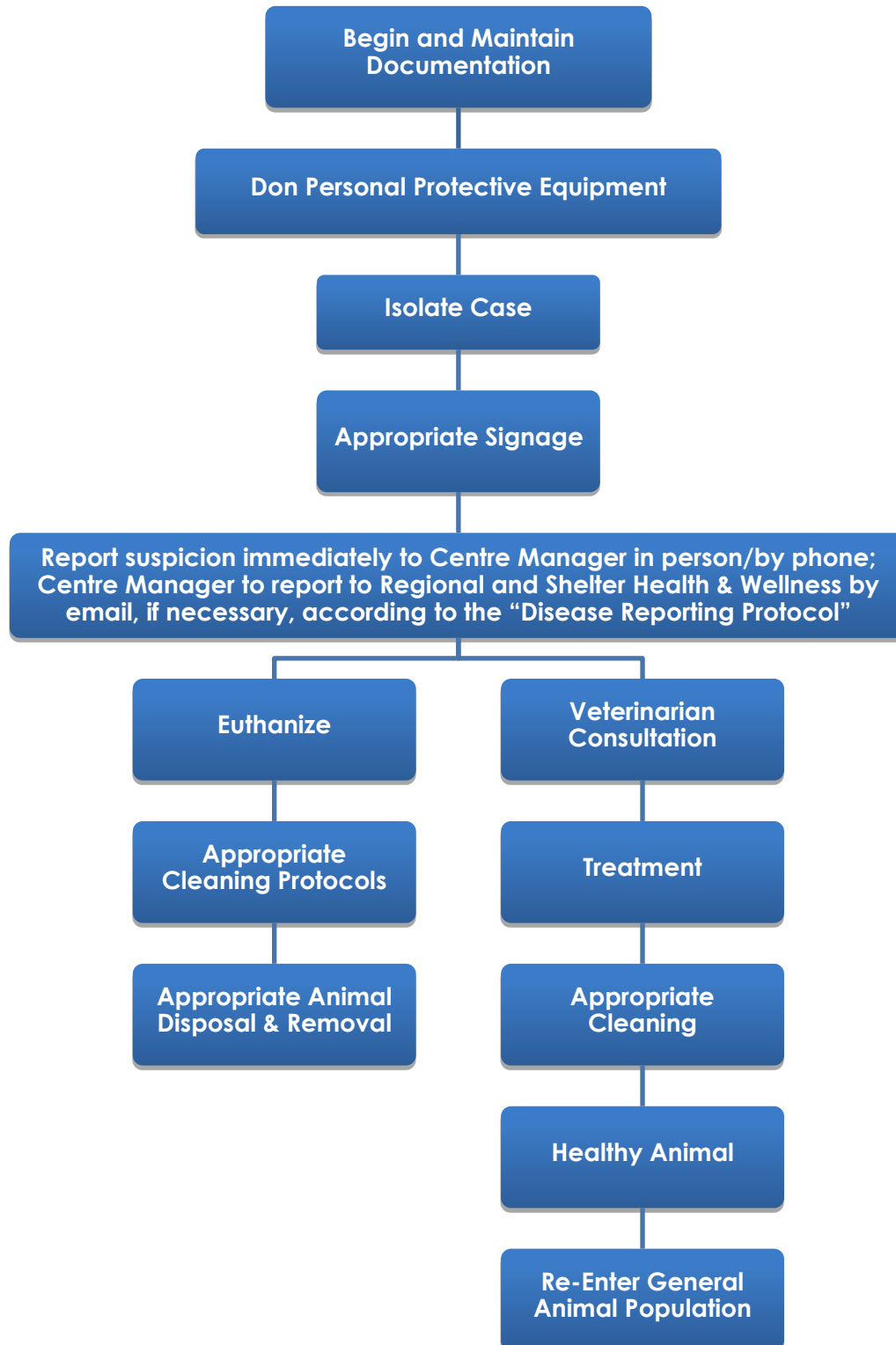
Treatment of Canine Distemper infected animals should only be undertaken in an animal centre if sufficient facilities exist to effectively separate the patient such that the rest of the population is not put at risk, and staffing resources (time, skill level) are adequate to ensure humane and appropriate care. The treatment plan will be determined by the VCPR (Veterinarian Client Patient Relationship) between the facility and their regular veterinarian.

If you see or suspect the following signs:

Upper respiratory disease including

- Purulent nasal discharge
- Pneumonia
- Dyspnea
- Vomiting/diarrhea
- Ocular problems
- Neurological signs

Follow these next steps:



Diagnosis:

When to test: Any animal exhibiting characteristic clinical signs.

Clinical signs of upper or lower respiratory infection and gastrointestinal disease are non-specific; a diagnosis of distemper should not be made based on these signs alone. Clinical signs that are more suggestive of distemper but that are seen with less frequency include neurological signs, ocular signs and dermatological signs.

Who performs the test: External diagnostic facility

How to test:

- **IFA** for viral antigen or inclusion bodies in cells from conjunctival scrape, urine sediment, buffy coat
- **PCR** of nasal or ocular discharge, respiratory mucosa or conjunctiva
- Serum IgM or rising serum IgG
- CSF antibody detection

Test comments: Lymphopenia and thrombocytopenia are common acutely. There is no satisfactory test for diagnosing distemper antemortem.

Where Housed:

- **Isolate** all positive cases ideally in a separate room used only for this purpose (ie. not in a bathroom). If strict isolation is unavailable, appropriate separation from the remainder of the population is mandatory
- **Work with a Veterinarian knowledgeable in shelter medicine to develop a plan for other dogs in the facility**

How Cleaned:

1. **Don proper PPE** for ANYONE coming in contact with a suspected animal or entering isolation – disposable gloves, disposable gown, impermeable shoe covers
2. Continue with your Animal Centre's cleaning protocol as approved by the Department of Shelter Health & Wellness
3. Staff must wear full PPE (gloves, gown, shoe covers) in any room housing symptomatic animals undergoing treatment
4. **Disinfect using** (whichever is your normal disinfecting agent):
Oxidizing Agents: Such as Prevail®, Peroxigard Plus™, Virkon®
5. Dishwashers should be used in place of mechanical scrubbing, when at all possible
6. **TWO FULL CLEANINGS (cleaned, disinfected, dried) is required before reusing the kennel**

** As a reminder where staff is responsible for cleaning multiple housing units, the sequence they should be cleaned is: **From clean to dirty,**

1. Adoptable kittens/puppies
2. Adoptable adult animals
3. Stray/Quarantine kittens/puppies
4. Stray/Quarantine adult animals
5. Isolation areas

Which animals to treat:

- Treat symptomatic animals, by managing the symptoms and secondary infections created due to the virus. There is no specific treatment for distemper. This should only be undertaken in an animal centre if sufficient facilities exist to effectively separate the patient such that the rest of the population is not put at risk, and staffing resources (time, skill level) are adequate to ensure humane and appropriate care. The treatment plan will be determined by the VCPR (Veterinarian Client Patient Relationship) between the facility and their regular veterinarian
- All animals should be treated, as long as they are a good adoption candidate and as long as there is appropriate separation (separate room isolated from other animals is preferred but not mandatory) and adequate resources to support treatment and housing

Treatment:

- Treatment needs to be done under Veterinary Supervision
- Re-vaccinate all dogs that have not been vaccinated in the last 14 days
- Vaccination on Intake is the cornerstone of distemper prevention in an animal centre!

Monitoring:

- ACA, RVT or senior animal care member is responsible for daily monitoring and proper documentation

Recovery/Treatment Failure:

- To be determined by the supervising veterinarian

Adoption:

- Animals will be placed up for adoption after treatment has concluded and symptoms have resolved
- Although uncommon, adopters should be warned that neurological signs could develop up to 3 months after infection

Documentation:

- All animal centres are required to provide pertinent information as per the Ontario SPCA Adoption Sharing and Caring Policy

- Do not transport dogs and raccoons in the same vehicle

References: Koret Centre, Shelter Medicine – UC Davis

<http://www.sheltermedicine.com/library/resources/canine-distemper-cdv>