

### **TECHNICAL BULLETIN**

# **Kennel Cough**

## Canine Infectious Respiratory Disease Complex (CIRDC)

Among canines, CIRDC is represented by numerous pathogenic microorganisms presenting in varying combinations; the most common of which is Bordetella bronchiseptica.

### Viral pathogens:

- · Canine adenovirus type 2
- · Canine coronavirus
- · Canine distemper virus
- · Canine herpes virus
- Parainfluenza

#### **Bacterial pathogens:**

- Bordetella bronchiseptica (infects dogs, cats, rabbits)
- Mycoplasma
- · Other secondary bacterial pathogens.

In the case of Bordetella infection, clinical signs develop 2 to 10 days following exposure. Typical presentation includes a hacking cough while maintaining normal appetite and energy levels. Untreated dogs may shed microorganisms intermittently for months following exposure. Coughing animals should be isolated (while on premises and following discharge) to prevent transmission. Recommended antibiotics include doxycycline or amoxicillin/clavulanic acid for 7 to 10 days. A short course of cough suppressants may also prove beneficial. Because most patients are not systemically ill; signs of fever, lethargy, or decreased appetite suggest pneumonia and/or other causes, and may warrant hospitalization and further diagnostic exploration.

Dogs tend to be exposed to Bordetella bronchiseptica in crowded areas therefore, boarding kennels, pet stores, shelters, training classes, breeding facilities, and shows are all at greater risk for propagating infection. Bordetella can persist in the environment for at least 10 days. Caretakers should therefore be educated on the importance of hygiene and sanitation. General recommendations would include 10 to 15 air changes per hour, a relative humidity of 50% to 65%, and ambient air temperatures of 70°F to 75°F. Thorough cleaning of cages, walls, floors, and bowls with routine disinfectants is essential. Bordetella is susceptible to most commonly used disinfectants. Proper handwashing (including use of hand sanitizers), or use of disposable gloves, are also necessary for caretakers or others who move from one animal to another. It is important to note that because the Kennel Cough complex consists of various airborne pathogens, relying on disinfectants alone can be a point of breakdown in disease transmission control, as disinfectants alone do nothing to treat the air or inhibit fomite transmission through people and/ or objects.

Regarding vaccination, nasal, injectable, and oral vaccines are all available. It is important to note that when given subcutaneously, the nasal form of kennel cough vaccination may cause severe hepatotoxicity (so be careful to read labels and administer vaccines properly). The nasal vaccination confers substantial immunity (83%) by 5 days post-vaccination. Many veterinarians recommend vaccinating every 6-months instead of yearly and revaccinating at least 5-days before entering a boarding facility or other hi-risk situation.

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Dr. Seitz has a diverse business background through a variety of business affiliations. After serving in the U.S. Naval Air Corps, he graduated from Michigan State University with his Doctorate in Veterinary Medicine and began private practice. He then went on to develop and build a veterinary product distributorship for one of the nation's largest Pet Product Distributors. Following that success, he moved to New England to take a position with a billion dollar a year medical supply manufacturing company and was instrumental in their efforts to build and develop a dominate presence among the veterinary community throughout the United States. He then left that position to start Alpha Tech Pet, Inc. in 1989, with a focus on developing, manufacturing, and marketing various environmental products for use in the animal care industry. Since that time he has established a strong presence in the marketplace with sales of



nationally branded items throughout the United States. He also serves on the New England Board of Governors for Hope International, a Christian non-profit organization committed to microenterprise development, helping the poorest of the poor around the world start small businesses. Dr. Seitz is married with two children and believes solidly in commitment to strong family values. His favorite activities outside of work are reading the Bible, spending time with his family, golf, and serving in the church in which he and his family attend.